



**INDIAN AGRICULTURAL
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INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN OF ECONOMIC
AND SOCIAL INTELLIGENCE)

YEAR IX : NUMBER 1

JANUARY, 1918.

ROME
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THE INTERNATIONAL INSTITUTE OF AGRICULTURE

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It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance, and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilising for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Chu (60 ken) (Japan)	=	119 30327	yards
1 Crown (100 keller) (Austria-Hungary)	=	10 <i>d.</i>	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1 <i>s.</i> 1 ¹ / ₅ <i>d.</i>	at par
1 Declatine (2 tchetwert) (Russia)	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ²³ / ₆₄ <i>d.</i>	at par
1 Dollar, gold, (\$) (100 cents) (United States)	=	4 <i>s.</i> 5 ¹ / ₁₆ <i>d.</i>	at par
1 Drachm, gold, (100 lepta) (Greece)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1 <i>s.</i> 7 ⁵³ / ₆₄ <i>d.</i>	at par
1 Franc (100 centimes) (France)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold, (100 bani) (Rumania)	=	9 ²³ / ₆₄ <i>d.</i>	at par
1 Leu (100 statinki) (Bulgaria)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Lira (100 centesimi) (Italy)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Litre	=	{ 0.21998	gallons
		{ 0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ <i>d.</i>	at par
1 Mark (100 penni) (Finland)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Metre	=	3.28084	feet
1 Milreis, gold, (Brazil)	=	2 <i>s.</i> 2 ⁶¹ / ₆₄ <i>d.</i>	at par
1 Milreis, gold, (Portugal)	=	4 <i>s.</i> 5 ¹⁹ / ₆₄ <i>d.</i>	at par
1 Peseta, gold, (100 céntimos) (Spain)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Peso, gold, (100 centavos) (Argentina)	=	3 <i>s.</i> 11 ³⁷ / ₆₄ <i>d.</i>	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18 <i>s.</i> 0 ¹⁵ / ₆₄ <i>d.</i>	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold, (100 kopeks) (Russia)	=	2 <i>s.</i> 1 ³ / ₈ <i>d.</i>	at par
1 Rupee, silver, (16 annas) (British India)	=	1 <i>s.</i> 4 <i>d.</i>	at par
1 Talari (20 piastres) (Egypt)	=	4 <i>s.</i> 1 ¹¹ / ₃₂ <i>d.</i>	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold, (2 fun or 100 sen) (Japan)	=	2 <i>s.</i> 0 ³⁷ / ₆₄ <i>d.</i>	at par
1 Zentner (Germany)	=	110.23171	lbs.

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Part I: Co-operation and Association

HOLLAND.

THE DAIRY INDUSTRY IN HOLLAND
AND CO-OPERATIVE ORGANIZATION

by H. M. R. LEOPOLD.

SOURCES:

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DE F. N. Z. VAN 20 OCTOBER 1909 TOT 1 MEI 1909 (*The Dutch General Association of Co-operative Dairies from 20 October, 1900 to 1 May 1909*), undated (1909).

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§ 1. GENERAL REMARKS.

The first trustworthy statistics regarding Holland, those of 1833, state that the meadows occupied about a third of the total area of the country and this fact remains true today. The official publications of 1916 show that out of Holland's territory of 3,418,581 square kilometres (1) there are 1,252,319 square kilometres of meadows. Throughout the period on which the official figures bear no considerable conversion of meadow into arable land is noted. Only in the neighbourhood of the large towns and in a strictly circumscribed country — for example the *Langendijk* in the province of North Holland — market gardens have invaded land which formerly served to feed live stock. Elsewhere the modifications are quite negligible.

The provinces which are richest in meadowland are Frisia (about 100,000 hectares out of 322,033), North Holland (about 70,000 out of 279,770), South Holland (about 80,000 out of 313,035), Utrecht (about 42,000 out of 138,543), Drenthe (about 23,000 out of 266,550), Overijssel (about 64,000 out of 339,868) and North Brabant (about 11,000 out of 509,843).

The soil of these districts largely enjoys the most favourable conditions for the formation of meadows. Turfy marshes below the level of the sea and of large streams are never without water and have so great natural fertility that as soon as drainage has been regulated they produce grass in abundance. The ditches surrounding parcels of land are usually navigable and facilitate the transport of milk. A peasant hardly ever has more than one horse which he uses to take him to the town, to market.

From 1891 to 1900 the first hay harvest produced on an average in Frisia 2,981 kilogrammes (2) a hectare (3), 3,375 kilogrammes from 1900 to 1910, 3,675 in 1915 and 3,875 in 1916. The corresponding figures which refer to North Holland are: 3,502 kilogrammes from 1891 to 1900, 3,875 kilogrammes from 1901 to 1910, 4,025 in 1915 and 4,100 in 1916. For South Holland we have 3,545 kilogrammes from 1891 to 1900, 4,000 from 1901 to 1910, 4,400 in 1915, and 4,600 in 1916; and for Utrecht 3,649 from 1891 to 1900, 4,125 from 1901 to 1910, 4,500 in 1915 and 4,650 in 1916.

This increased fertility enables the peasants to send their animals onto the meadows earlier in the spring but necessitates on the other hand the purchase abroad of a larger quantity of winter fodder. The imported

(1) 1 kilometre = 1093.633 yards. (2) 1 kilogramme = 2.2 lbs. (3) 1 hectare = 2.47 acres.

maize, for example, amounted to about 500 million kilogrammes in 1906 and to more than 1,000 million in 1913. Sometimes, especially in the south, the land needs chemical manures in order that enough grass may be grown, but as a rule Dutch meadows are self-sufficient. Consequently milk production employs comparatively little labour. The men clean out the ditches, remove thistles from the fields, mow the ripe grass not used to feed the animals — most often with modern machinery — and make cocks of it. The men and women together look after the cattle, whether these are out of doors or stalled, and milk the cows once or twice a day. Before co-operative dairies were established the women also made butter and cheese. Such home production has now come to be exceptional in several provinces, but elsewhere — for instance in South Holland — nearly all the cheese is still made on the farms. One woman and two men servants and one ploughman now suffice for a farm of 25 hectares.

Density of Live Stock. — From 1871 to 1880 the average number of heads of cattle was 1,438,059, but from 1881 to 1890 it had increased to 1,485,722, from 1891 to 1900 to 1,574,570, in 1910 it was 2,026,943, in 1913 it was 2,096,599, and in March and April 1917 it was 2,301,532. The population of Holland passed from 4,012,693 in 1869 to 6,449,348 in 1915. The live stock therefore increased much more rapidly than the people. Out of the total number of cattle in 1917 there were 1,234,594 milch cows giving milk. Thus there was one productive cow for every five inhabitants — a clear proof of the importance of the dairy industry to Holland. The record density of live stock is found in the neighbourhood of Gouda where in 1910 there were on 100 hectares of land 206 heads of cattle, as well as 163 pigs and 45 poultry.

Improvement of Live Stock. — It is impossible to form an opinion on the present condition of live stock as compared with their condition some forty years ago. It is evident however that the cows have become much larger for the old byres are not big enough for them. It is moreover almost certain that the care of breeding associations has had good results on the production of milk. *Statistics as to this point are still defective but all leads to the conclusion that throughout Holland that perfection of breeding will be reached which has distinguished Frisia from time immemorial. The Dutch *Herd-Book* is attempting to form for the whole country an uniform breed of cattle such as already exists in Frisia.

Depreciation of Butter. — The dairy industry would not however have attained to so considerable a development without the foundation of factories which in a few years completely modernized production. Peasants are always extreme conservatives, in Holland no less than elsewhere. They would certainly not have changed their habits if they had not seen that their produce was suffering serious depreciation on foreign markets. Already in 1877 Frisian butter — the best butter in Holland — was worth much less than Danish butter on the British market, whither it was then most exported.

This inferiority remained constant until 1890 and was considerably

accentuated toward 1897, after which date Dutch butter regained ground until in 1911 its value had become equal to that of Danish butter.

To give an idea of the economic importance of this improvement it is enough to state that a rise of 10 cents in the price per kilogramme meant a gain on the total product in 1912 — 43,500,000 kilogrammes — of 4,350,000 florins (about £1,800,000).

Fraud. — The chief cause of the depreciation of the butter was commercial frauds. The peasants delivered their butter to wholesale merchants, who as early as 1870 bought in the southern provinces butter containing an excess of sebatic acid and, with the help of unscrupulous chemists, mixed it with margarine, thus obtaining a compound which contained the quantity of sebatic acid usual to Frisian butter.

Dutch exports were consequently discredited.

The honest producers were revolted, but it was only after a hard struggle that they could overcome the syndicate of defrauders. The latter had on their side the peasants of the southern provinces to whom they paid more than the market-price for their butter which was rich in sebatic acid and therefore suitable for being mixed with heterogeneous substances.

These same peasants have since renounced such easy gains in order to re-establish the reputation of the produce of their nation. The association for the production of dairy produce in North Brabant (*Noord-brabantsche Zuivelbond*) headed the reaction. It founded a *minque* (central market) to compete with the syndicate's market, and after a "butter war" of two years (1904 and 1905) got the better of the fraudulent traders.

Modernization of Production. — We have already noted the excellent results of the energetic campaign against fraud: in 1911 the prices of Dutch and of Danish butter were once more equal. But to bring this about much more than the accidental victory over the fraudulent traders was necessary. The Danes, who came later onto the international market, at once organized their production on a modern system; and as early as 1880 the Frisians understood that they ought to learn from Denmark her good methods. An interval of some years had however to elapse before this theoretical avowal of inferiority had practical results.

The Experts. — It was only in 1889 that the Frisian Society of Agriculture (*Friesche Maatschappij van Landbouw*) nominated the first expert who was responsible for inspecting dairy production. Between 1893 and 1900 the other provinces followed Frisia's example. These experts were subsidized by the State but depended financially on the agricultural organizations and were controlled only by commissions elected by these associations. In 1912 the government decided to change them into independent government servants, still however controlled by the aforesaid commissions. They are obliged to give lectures and courses of instruction, also to supply information as to the industry, and to help to found factories, teaching the staff and inspecting and analysing all the products of such. From 1907 to 1911 the lectures given numbered 807 and the total number who listened to them was 51,000.

The Butter Law. — The activity of the experts is also supported by the

law which has opposed fraud since 1900. Amended in 1910 this "butter law" prescribes the absolute separation of the manufacture of margarine from that of butter and determines for the latter a minimum and for the former a maximum content of fat. Since 1902 margarine has been further distinguished by a mark prescribed by government.

We should add that since 1913 an analogous control of cheese, which also implies an official mark, has been instituted.

§ 2. THE ROLE OF PRIVATE ENTERPRISE.

Government action depends on private initiative, and can therefore confine itself within the narrow limits we have examined.

Frisia set the example. In 1902 the Frisian Society of Agriculture (*Friesche Maatschappij van Landbouw*) founded the first "station for the inspection of butter" (*botercontrolestation*). The inspection is made by travelling inspectors who take samples of the butter produced by members, either in the farms or factories or during its transport, and may at any time examine administration. Fraud is punished by fines or in serious cases by expulsion. The "members of the station" must place the official mark on their produce.

858 producers and dealers were affiliated to the *botercontrolestations* at the beginning of 1912. They represented a production of about 45,500,000 kilogrammes, made almost entirely in factories since they included only 41 farmers and 55 dealers. Since in 1912 there were altogether only 957 butter factories producing 50,000,000 kilogrammes, it is easy to understand why the government authorized this inspection, procuring for it official marks at cost price and subsidizing it. The inspecting staff comprised in 1912 about 40 persons distributed over eight stations, and respectively inspecting 14, 2 $\frac{1}{2}$, 4, 11 $\frac{1}{2}$, 5, 5 $\frac{1}{2}$ and 3 $\frac{1}{2}$ million and 145,000 kilogrammes of butter.

This butter, as we have said, emanated chiefly from factories. The two first butter factories of Frisia were founded in 1879. They were not co-operative, the first co-operative factory dating only from 1887. The number of factories founded was 29 in 1890 and that of co-operative factories 16; in 1895 the corresponding figures were 41 and 34, in 1900 they were 51 and 75, in 1910 they were 38 and 66, and in 1916 they were 33 and 89. The total number of co-operative butter factories in the whole country was 216 in 1895 and 602 in 1916. Co-operative cheese factories numbered 201 in 1910 and 236 in 1916. Industrial butter factories numbered 267 in 1895, 278 in 1910 and 282 in 1916, and cheese factories 90 in 1910 and 101 in 1916. Thus in the whole country there were 882 butter factories and 337 cheese factories in 1916.

§ 3. THE GENERAL DUTCH ASSOCIATION OF CO-OPERATIVE DAIRIES.

The co-operative establishments first united in a Dutch Co-operative Alliance (*Nederlandsche Coöperatieve Bond*), but the federal movement did

not acquire full strength until 1900 when the General Dutch Association of Co-operative Dairies — the *Algemeene Nederlandsche Zuivelbond*, abbreviated to F. N. Z., was founded.

The importance of this federation appears from the following table:

TABLE I. — *Evolution of the F. N. Z*

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916
<i>Number of affiliated factories.</i>																
Frisia	52	56	64	65	65	65	68	76	78	78	80	82	83	85	85	87
Gueider and Overijssel	25	26	28	35	37	38	39	39	43	47	53	57	63	68	72	89
South Holland	140	142	146	149	150	155	151	147	217	214	198	183	174	164	157 (1)	152
North Brabant	130	131	130	122	120	116	109	109	—	—	—	—	—	—	—	—
Drenthe	33	39	40	42	41	47	45	38	21	19	16	25	26	27	32	36
Groningen	27	27	27	23	22	24	21	21	21	22	22	24	23	25	24	24
Brabant	—	—	—	—	—	—	—	—	—	—	—	13	14	20	23	24
North Holland	—	—	—	—	—	—	—	—	—	—	—	—	—	65	72	83
Total	407	421	435	436	435	445	433	430	380	380	369	384	383	454	465	495
<i>Quantity of milk handled (in thousands of kilogrammes).</i>																
Frisia	180	197	243	281	268	277	315	361	381	367	377	369	408	449	464	322
Gueider and Overijssel	44	33	56	70	72	78	97	113	130	152	158	190	233	251	278	343
South Holland	51	52	53	56	58	69	78	88	136	151	150	135	161	175	160	184
North Brabant	42	48	48	46	54	61	52	52	—	—	—	—	—	—	—	—
Drenthe	32	40	43	47	46	48	55	69	47	49	39	42	68	73	88	93
Groningen	17	21	24	22	23	25	29	36	35	37	38	48	53	63	70	85
Brabant	—	—	—	—	—	—	—	—	—	—	—	31	36	46	56	70
North Holland	—	—	—	—	—	—	—	—	—	—	—	—	—	72	93	117
Total	366	411	467	522	521	558	626	719	729	756	762	815	959	1,129	1,209	1,414

(1) The reduction in the number of factories in South Holland implies not retrogression but progress. It means that the dairy industry has followed a regular development which has ended in the substitution of steam for human energy.

Objects and Activity. — In one of its pamphlets of propaganda, dating from 1913, the F. N. Z. explains as follows its organization and business:

The association seeks to attain its end:

- 1) By collaborating, on the basis of co-operation and reciprocal advice, with all that can favour the prosperity of the affiliated unions;
- 2) By discovering and prosecuting for fraud in the manufacture of and trade in dairy produce;
- 3) By pressing the competent authorities to adopt all measures advancing the interests of the dairy industry;
- 4) By granting diplomas for the various occupations in this industry;
- 5) By drawing up statistics as to dairy products;
- 6) By issuing a bulletin and other publications regarding the manufacture of dairy products.

The members of the association are divided into ordinary and extraordinary members. Unions of co-operative dairies, recognized to be legal persons, may be admitted as ordinary members.

The following may be admitted as extraordinary members :

a) Societies recognized to be legal persons who administer a co-operative dairy and are established in a province in which there is no union of co-operative dairies belonging to the F. N. Z.

b) Persons who have proved their desire to favour co-operation in the dairy industry.

The business of the General Association is divided as follows :

1) *General business.*

2) *Weekly News-sheet* (the official organ of the General Dutch Association of Co-operative Dairies) ;

3) *Mutual central purchase.* — An office provided with a laboratory buys the material necessary to production and packing for members desiring such. The figures representing sales passed from 222,955 florins in 1913 to 701,751 florins in 1916. This increase is partly explained by the rise in prices : the price of salts of soda passed from 4.80 to 17.30 florins, of salt-petre from 28.40 to 200 florins, of Limbourg coal from 85 to 155 florins, of British coal from 115 to 267.50 florins, of rennet from 0.60 to 4 florins.

4) *Weekly tests of butter*, to which from time to time competitions are added.

5) *Inspection* — Only dairies affiliated for the inspection of their butter to a station for the inspection of butter, ultimately supervised by the State, are admitted as members of the co-operative dairy organizations. The inspection of the administration of the dairies is made in Frisia and the Southern Netherlands, in the name of the unions, by special employees of these, but in Guelder and Overijssel by the secretary of the union in these provinces. In other dairies administration is inspected by the F. N. Z.

6) *Instruction of mechanics* and advice tending to encourage the economical production of steam. — The technical bureau advises organizers of new dairies and inspects the working of the machinery bought. An expert mechanic also gives all useful information as to boilers and methods of heating. The courses for training the mechanics employed in the industry date back to 1912.

7) *Issue of diplomas to the staff of dairies.* — Every year the F. N. Z. holds examinations, on the results of which it grants sub-managers', milk inspectors', buttermakers', cheesemakers', centrifugists' and mechanics' diplomas. 101 candidates presented themselves for examination in 1916 and 50 diplomas were granted.

8) *Commercial information to affiliated dairies.*

9) *Information as to market conditions* conveyed in a biweekly bulletin.

10) *Pure cultures for the maturation of milk.*

11) *Minque and export of butter.* — The F. N. Z. has opened at Amheim a *minque* which was founded in the first instance to emancipate dairies from merchants who had entered into relations with the defrauders. Side

by side with this *minque* a department for the direct sale of butter without a middleman has been at work since 1908. This department sold 147,000 kilogrammes in 1908; 1,698,000 kilogrammes in 1913; 4,665,000 kilogrammes in 1915; and 7,341,000 kilogrammes in 1916.

12) *Insurance*. — The F. N. Z. founded in 1915 a mutual society for insurance against accidents. Members of the federation can also insure against fire (3,695,000 florins in 1916) and against theft (750,000 florins in 1916), and have concluded an arrangement with a life insurance company with a view to pensioning the employees and members of affiliated unions.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

AUSTRIA.

THE "DEUTSCHE LANDWIRTSCHAFTLICHE GESELLSCHAFT FÜR OESTER-
REICH" (*German Agricultural Society for Austria*). — *Der Arbeitsnachweis*, 11th year,
Nos. 2 and 3, Vienna, March, 1917.

This society was founded at Vienna in 1916 and aims at promoting rural technique, and at solving in a uniform way the problems which interest agriculture. It holds meetings of those interested in them which deal with all the arguments, politics other than agricultural politics being excluded. Available resources emanate from the society's own revenue, no grants being accepted or made. The society is divided into nine sections which deal respectively with the problems connected with the selection of seeds, forestry, stock farming, management and book-keeping, improvements, rural buildings, and finally legal questions.

Sub-commissions are investigating questions connected with sheep-rearing, the protection of plants, plants yielding oil and fibre, mountain lands, cheese-making, forage crops and seed for meadow-grass.

The legal section helps members where questions of agrarian rights and taxes and tariffs are concerned; the building section helps them when there is question of rural buildings. The society holds regular meetings and contemplates holding exhibitions, issuing weekly sheets of news and publishing works of a technical character.

BRITISH INDIA.

A GOVERNMENT ORDER AS TO THE BUSINESS OF CO-OPERATIVE BANKS. — *The Madras Bulletin of Co-operation*, Vol. IX, No. 3, September 1917.

The government of India on 25 July 1917 passed an order as to current and savings-bank accounts in central banks and primary societies.

In their recommendation the Committee on Co-operation in India deprecated the opening of current accounts by central banks except in places where banking facilities did not exist, and suggested that a low rate of interest, not exceeding 2 per cent., should be paid on such accounts, and that the whole amount so held should be covered by cash or government paper, irrespectively of fluid resources kept to cover other liabilities. In regard to savings accounts the committee expressed the opinion that 75 per cent. of the amount so held should be covered by cash or liquid investments, that

the maximum accepted on one account should be small, that notice of withdrawal should be required, and that these accounts should not be suffered to become current accounts. In the case of primary societies the committee recommended : a) that current accounts and deposits at call should be prohibited, and b) that short-term deposits, if made in the form of savings deposits, ought to be encouraged when small sums within strictly marked limits were taken and dealt with on lines similar to those of the Post Office savings-banks. The committee considered that the rate of interest on such deposits might be left to local decision, subject to the control of the Registrar.

The government order remarks on the want of uniformity among both central banks and primary societies in respect to the terms and conditions relating to savings deposits which in some cases are virtually withdrawable at call. It is essential that the rules regulating savings-bank accounts prevent these from endangering the stability of banks. Savings accounts should ordinarily be for such limited amounts that their sudden withdrawal cannot seriously dislocate the business of a bank, while the rate of interest should be low enough to attract only those who really need such a means of saving. These safeguards seem in some cases to have been neglected : under existing rules the maximum amount which may be deposited by a single depositor in such an account is in some cases as high as Rs. 50,000 ; while the whole sum deposited can be withdrawn at short notice or without notice, and, in some cases, the rate of interest allowed is as high as $4\frac{1}{2}$ and 5 per cent. per annum.

The government consider that in future the terms on which savings-bank deposits are accepted by the Madras Central Urban Bank should be adopted by all central banks, that is the maximum amount receivable in any one year from one individual should be fixed at Rs. 1,000, and the maximum amount to the credit of an account at any time should be fixed at Rs. 2,000.

The government also consider that the rate of interest allowed on savings deposits should not exceed $3\frac{1}{8}$ per cent. per annum ; the interest being calculated monthly on the lowest credit balance on any date of each month. Central banks should be required to hold 75 per cent. of the sums accepted in savings-bank accounts either in cash or government paper. These orders came into force at once in regard to all new savings-bank accounts. As regards existing savings accounts, it is directed that notice be given to the depositors that the orders will be applicable from the first of the following month.

As regards current accounts in central banks the government direct that the maximum rate of interest be fixed at $2\frac{1}{2}$ per cent. per annum, and that 75 per cent. of the total amount on such accounts be held in cash or government paper.

The same safeguards are imposed in the case of primary societies as in that of central banks.

CANADA.

1 THE ALBERTA FARMERS' CO-OPERATIVE ELEVATOR COMPANY. — *The Grain Growers' Guide*, Winnipeg, 28 November 1917

The brilliant success to which this co-operative company attained last year (1) was further developed in 1916-17.

The construction department built 43 elevators and six annexes, 52 warehouses and 57 coalsheds during the year. 103 elevators handled 16,375,333 bushels of grain. The company is rapidly increasing the percentage of grain handled by the elevators in most places; but the shortage of cars is a handicap which allows competitors to secure the grain which would otherwise come to the elevators. Owing to the smaller crop the average amount of grain handled by an elevator was less than in the previous year. The commission department handled 8,804,700 bushels of grain.

The business of the co-operative department increased beyond expectations. It handled 2,691 carloads as compared with 998 in the previous year, and a considerable additional amount was handled in lots less than carloads. The total turnover of \$1,519,984 was more than twice that of the previous year.

The live stock department handled 1,242 carloads as compared with 628 in the previous year.

The balance-sheet showed a profit of \$236,502 for the year, and the tax on business profits amounted to \$71,127.

A dividend of 8 per cent. was paid to shareholders. The total asset of the company amounted to \$2,554,790 as compared with \$1,509,496 in the previous year. The capital stock stood at \$563,689, the subscribed capital being \$1,291,620. The total turnover for the year was \$26,000,000, and the profits work out at slightly less than one per cent. of this amount.

Forty-two new local associations were organized, several without any assistance from the head office. There are now 145 local associations in Alberta, having 14,528 shareholders who hold 21,527 shares of the par value of \$60 each. The annual meeting, held at Calgary last November, recommended that every effort should be made to organize new local associations.

The balance sheet of the United Grain Growers, which resulted on the fusion last year of the Manitoba Grain Growers' Company and the Alberta Farmers' Co-operative Elevator Company, showed assets amounting to \$6,180,524, the shareholders' capital and surplus being \$3,484,656, the paid-up capital stock \$1,825,300, the reserve \$1,250,000 and the undivided profit and loss \$409,355. The turnover of the two companies, with subsidiary companies, was \$100,000,000 in the previous year.

The first shareholders' annual meeting of the united company will be held in November 1918.

(1) See our issue for March 1917, page 11.

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- 2 THE SASKATCHEWAN CO-OPERATIVE ELEVATOR COMPANY. — *The Grain Growers' Guide*, Winnipeg, 28 November 1917.

The Saskatchewan Co-operative Elevator Company brilliantly continued business in the year which ended on 31 July 1917 (1).

The directors' report shows that in 1916-17 more than 34,538,637 bushels of grain (39,089,000 in 1915-1916) were handled through the company's 258 elevators (230 in 1915-1916), while 2,198,912 bushels (4,109,000 in 1915-1916) were despatched directly. The largest amount handled by a single elevator was 401,400 bushels.

Net profits were less than in the previous year, amounting, to \$250,752.83 from which there was paid a cash dividend of 8 per cent. totalling \$70,945.20. The balance, namely \$279,807.63, are to be employed as follows: 50 per cent. is to be placed to the elevator reserve account; \$2.50 per share are to be paid on all shares allotted before 1 April 1917; and the remaining \$18,353.81 are to be transferred to reserves.

Of the 55,569 subscribed capital shares of \$50 each, representing a capital of \$ 2,678,450, the paid-up capital amounted on 1 April 1917 to \$886,815, having increased by \$259,473. These shares were distributed among 302 local associations having 19,317 shareholders.

3. THE DEVELOPMENT OF CO-OPERATIVE SOCIETIES IN SASKATCHEWAN. — *The Public Service Monthly*, Vol. VI, No. 5, Regina, December 1917.

The Co-operative Organizations Branch, added to the Saskatchewan Department of Agriculture after the passage of the Co-operative Associations Act in 1913, has year after year met with a more marked success. The fact is proved by the increasing number of co-operative associations organized and registered in consequence of the propaganda work which has been accomplished. Whenever and wherever a community of farmers shows a desire to take advantage of the Act, advice and practical help are freely tendered to them by the Co-operative Organizations Branch. By-laws are suggested to them; different lines of work, and the degree of success which may be expected from each, are indicated; men are sent to help in the first co-operative consignment of live stock; and provision is made for the difficult matter of co-operative accounts for such consignments by supplying the forms proved by the experience of other countries to be the simplest and the best.

An important amendment to the Act of 1913 was made in 1916. Formerly all transactions of the associations had to be paid for in cash. This was intended to prevent the associations from falling into the power of a

(1) See our issue for March 1917, page 19.

possibly antagonistic creditor, who might seriously embarrass a struggling association by pressing for payment at an inopportune moment. Nothing of the sort is to be feared if the creditor is another and similar association, and the amendment allows associations to buy on credit from other associations having objects like their own. Since this amendment was passed the central office of the Saskatchewan Grain Growers' Association has acted as a purchasing agency for the associations.

Of all branches of co-operation only co-operative production has not made much progress in Saskatchewan. There are in the province only one co-operative farm and only two co-operative breeding associations, the one for horses and the other for cattle.

The following comparative figures show the progress which has been made :

	1914	1915	1916
Associations reporting	102	173	209
Number of shareholders	2,850	5,537	9,444
Paid-up capital	\$ 13,494	\$ 39,421	\$ 92,940
Assets	" 37,337	" 105,322	" 295,012
Liabilities, including paid-up capital	" 29,717	" 82,956	" 232,938
Associations handling supplies	70	138	308
Value of supplies handled	\$ 239,320	" 805,456	" 1,984,545
Associations marketing live stock	9	10	23
Value of live stock marketed	\$ 2,034	\$ 150,512	" 32,171
Other farm produce marketed	—	8,923	15,115
Total turnover	\$ 281,354	\$ 964,892	" 2,122,832

The number of societies which registered between May and December 1917 was 367.

FRANCE.

THE INSPECTION OF THE SUBSIDIZED FUNDS OF AGRICULTURAL CREDIT AND AGRICULTURAL ASSOCIATIONS

A ministerial decree of 15 January 1917 regulates the working of the inspectorates as follows :

" Article 1. — On principle, inspections of the regional funds of agricultural credit, and of the various agricultural associations which profit directly or indirectly by the State's financial encouragement, are made without notice. Generally speaking, the inspector sends the report containing his notes and observations to the inspected institutions, who reply and return the report to him. He then adds to it his conclusions, which should resume his observations and advise as to whether advances should be renewed and new advances or subsidies assigned to the institutions. The inspectors of credit and of the agricultural associations then send their reports and those which the directors of their agricultural services have remitted to them to the general inspector. The latter adds his observations to each report and submits it, if necessary, to the council of inspection. The reports are then remitted to the director of agriculture.

" Article 2. — The director of agriculture sends the reports concerning institutions of agricultural credit, agricultural co-operative societies which have received advances from the State and agricultural mutual insurance societies to the chief of the department of agricultural credit, co-operation and mutual aid, who is keeper of these reports.

" The chief of the department of agricultural credit, co-operation and mutual aid takes, with respect to these institutions, the steps indicated by the observations in the reports remitted to him by the director of agriculture, and intimates to the latter what steps he has taken and what results they have had.

" At the next inspection the inspectors must investigate as to whether the prescribed steps have been taken and must make any useful observations relevant to them.

" Every regional chief must draw up annually, with the help of the inspector who collaborates with him, a report on all the institutions in his region and must send it to the general inspector before 31 January,

" Before they start on a tour the inspectors may ask the chief of the department of agricultural credit, co-operation and mutuality to communicate to them all evidence which may be useful to the work of supervision with which they are charged.

" Article 3 — The department of agricultural credit, co-operation and mutuality remits to the department of inspection a copy of the quarterly balance-sheets, the abstract as to the business of local and of regional funds and the minutes *in extenso* of general meetings which it receives from the regional funds of agricultural credit. It remits to it at the same time twenty copies of the circulars it has sent out. It notifies it of the advances and subsidies granted to the various supervised institutions.

" It prepares and verifies collections of the applications for advances presented by the regional funds of mutual agricultural credit societies and the agricultural co-operative producers' societies, and collections of the applications for subsidies made by the funds of agricultural mutual reinsurance, and transmits all these to the director of agriculture in order to obtain the opinion on them of the department of inspection when they are complete and when, in the case of co-operative societies, the competent directorates have proceeded to make technical and economical enquiries.

" Article 5. — The chief of the department of agricultural credit, co-operation and mutuality notifies to the director of agriculture the institutions which should, in his opinion, be the object of a special examination, and indicates the particular points on which he wishes for more detailed information, and the propaganda which seems to him to be needed in favour of a special form of institution of agricultural credit, co-operation or mutuality. He also informs him, as occasion arises, of the societies which ought, in his opinion, to be created, and in favour of which he thinks the administration ought to intervene specially.

" The director of agriculture then takes the steps which seem to him necessary, on the advice of the inspector general, who is the chief of the department of the general inspection of credit and subsidized agricultural

associations. He detaches an inspector, or appeals to the director of agricultural services in the geographical department concerned ”.

GERMANY.

THE UNION OF GERMAN AGRICULTURAL SOCIETIES IN 1916

The yearbook of the Union of Agricultural Societies of the German Empire gives some interesting details as to the union's activity in the third year of war.

The first part of the yearbook contains an examination of the general development of agricultural co-operation in Germany from June 1915 to May 1916, and of the activity of the union and the work of propaganda undertaken by central banks and central societies for purchase and sale.

In 1915 the turnover of the central banks passed from 7,600 million to 14,100 million marks, and the turnover of the trade affected by the central societies for purchase and sale from 303 million to 459,200,000 marks.

The report of the union's administrative council is followed by the report made to the 31st Congress of German Agriculture, held at Berlin on 26 October 1916. The greater part of the yearbook is however taken up by statistics as to 17,988 societies belonging to the union. At the end of 1916 the affiliated co-operative societies numbered 19,045, being 65.7 per cent of all German agricultural co-operative societies, and were federated in 30 national and provincial federations. They included 62 central societies 11,641 savings and loan banks, 2,341 societies for purchase and sale and 2,260 co-operative creameries. The 2,741 other societies comprised co-operative societies for the sale of live stock, eggs, fruit and vegetables, etc.

At the end of 1916 the rural savings and loan banks had a total turnover of 6,900,000 marks, and the co-operative societies for purchase and sale one of 278,800,000 marks. The co-operative creameries handled 1,750 million kilogrammes (1) of milk.

GREAT BRITAIN AND IRELAND.

CO-OPERATION IN AGRICULTURE IN 1915. — *The Labour Gazette*, Vol XXV, No. 11, London, November 1917.

The following particulars as to registered co-operative societies in the United Kingdom are based upon returns made directly to the Ministry of Labour, supplemented by information supplied by the Chief Registrar of Friendly Societies.

Distribution and Production. — Returns obtained by the Ministry of Labour show that 994 registered co-operative societies engaged on agricultural distribution and production were at work at the end of 1915. Of

(1) 1 kilogramme = 2.2 lbs

them 911 were engaged wholly on agricultural operations — 522 on the distribution of seeds, manures, implements and other commodities, and 322 mainly on the production of butter.

The 911 societies had an aggregate membership of 122,072, this number having increased by 5,028 or 4.3 per cent. since 1914 and by 54,541 or 80.8 per cent. since 1905. The total share, loan and reserve capital amounted to £1,263,577, having increased by £108,184 or 9.4 per cent. since 1914 and by £848,088 or 204.1 per cent. since 1905. The aggregate value of sales during 1915 was £9,001,867, having increased by £2,151,922 or 31.4 per cent. since 1914 and £6,997,140 or 349 per cent. since 1905. The profit was £169,610 or £67,573 more than in 1914.

The number of persons employed by these societies was 3,532 and the amount paid to them in wages £195,101, which figures showed increases since 1914 of 119 and £16,295, respectively.

In addition to these 911 societies, 83 industrial co-operative societies had in 1915 departments for farming and dairy-work in which they employed 832 persons receiving £49,656 in wages, and of which sales reached the value of £432,549.

The following table shows the value of the sales in 1915 of all the 994 distributive and productive societies and departments :

	Agricultural Distributive Societies	Agricultural Productive Societies and Departments	Total	
			Amount	Percentage
	£	£	£	
England and Wales.	3,005,849	617,497	3,623,346	38.4
Scotland.	521,208	371,083	892,291	9.5
Ireland.	969,521	3,949,258	4,918,779	52.1
United Kingdom.	4,496,578	4,937,838	9,434,416	100.0

Thus the value of the sales by the distributive societies in England and Wales was more than twice that of the sales by the combined distributive societies of Scotland and Ireland ; but the productive societies and departments in Ireland sold a total value more than four times greater than that sold by those in England and Wales and in Scotland.

Distribution. — The following table shows the sales of agricultural distributive societies from 1905 to 1915 :

Year	England and Wales		Scotland		Ireland	
	No.	Sales	No.	Sales	No.	Sales
	of Societies	£	of Societies	£	of Societies	£
1905	82	214,292	5	46,610	150	371,273
1906	111	387,775	8	51,511	161	420,223
1907	121	572,735	12	80,338	163	484,771
1908	131	751,445	19	99,530	157	469,556
1909	145	885,683	31	227,141	160	491,034
1910	165	1,036,515	43	291,838	168	521,193
1911	217	1,325,547	55	335,470	159	525,580
1912	228	1,623,805	69	367,273	153	641,239
1913	242	1,822,050	73	417,742	150	694,841
1914	278	2,078,002	77	468,165	157	783,927
1915	265	3,005,849	79	521,208	178	969,521

As compared with the previous year the value of sales in 1915 had increased by 44.7 per cent. in England and Wales, by 11.3 per cent. in Scotland and by 23.7 per cent. in Ireland. As compared with 1905 the increase in England and Wales and in Scotland was great and in Ireland it was one of more than 100 per cent.

Production. — The following table shows the number of societies engaged on production and the value of their sales and transfers from 1905 to 1915 :

Year	Special Farming and Dairy Societies		Farming and Dairy Departments of Wholesale and Retail Industrial Distributive Societies		Total Agricultural Production by all Classes of Societies	
	No.	Sales	No.	Sales and Transfers (1)	No.	Sales and Transfers (1)
	of Societies	£	of Societies	£	of Societies	£
1905	260	1,372,552	56	402,639	316	1,775,191
1906	272	1,683,120	61	473,258	333	2,156,378
1907	287	1,829,279	64	477,379	351	2,306,658
1908	303	1,969,582	69	494,889	372	2,464,471
1909	318	2,044,917	71	467,967	389	2,512,884
1910	336	2,255,047	71	435,568	407	2,690,615
1911	338	2,387,642	72	330,267	410	2,717,909
1912	352	2,925,432	76	301,069	428	3,226,501
1913	368	3,135,627	73	307,015	441	3,442,642
1914	383	3,519,851	80	336,143	463	3,856,294
1915	389	4,505,289	83	432,549	472	4,937,838

(1) The goods produced by the productive departments of industrial co-operative societies are usually not sold directly but transferred to the distributive departments.

As compared with 1914 there was an increase of about 28 per cent. in the value of the sales both of the special farming and dairy societies and of the agricultural departments of industrial societies. As compared with 1905 this value in the case of the farming and dairy societies had increased by 228 per cent., in that of the agricultural departments of industrial societies by 7.4 per cent.

Profit sharing. — The returns made to the Ministry of Labour show that of the 522 agricultural distributive societies 57, employing 263 persons and paying £20,805 in wages, paid bonuses to their employees amounting to £2,230 or 10.7 of such wages. Of the 389 agricultural productive societies 67, employing 488 persons and paying £23,972 in wages, paid bonuses to their employees amounting altogether to £1,515 or 6.3 per cent. of such wages.

Of the 83 departments of industrial societies nine, employing 43 persons and paying £3,040 in wages, paid bonuses to their employees amounting to £91 or 3 per cent. of wages.

RUSSIA.

THE ORIGIN AND GROWTH OF THE UNION OF SIBERIAN CREAMERY ASSOCIATIONS. — YAROFF (G. M.) in *The Russian Co-operator*, Vol. I, No. 12 and Vol. II, No. 1, London, November and December 1917.

Three stages of development can be discerned in the history of co-operative buttermaking in Siberia. In the first period — 1897 to 1902 — a few scattered co-operative creameries appeared and fought the private enterprises. The second stage was introduced in 1902 by the establishment of an organization for the promotion of co-operative buttermaking with government help. The third stage began in 1908 with the creation of the Union of Siberian Creamery Associations which has united most of the co-operative creameries of Western Siberia.

A) *Period of Formation.* — Western Siberia possesses large areas of free land and a very small population. Its meadows and steppes produce such an abundance of good, nourishing hay that, in spite of as much as six months of cold, a farmer can feed his cattle all the year round without having resort to special grass cultivation. Stock breeding has therefore been considerably developed. In the government of Tobolsk, for instance, 70 per cent. of the households own from one to five milch cows each and 28 per cent. from six to nineteen, while the remaining 2 per cent. possess twenty or more cows each.

This growth of stock-breeding has not however been accompanied by a corresponding growth of buttermaking. The latter industry did not become important until after the making of the Trans-Siberian Railway. Only then, that is after 1895, a few privately owned creameries and some private firms which exported butter arose. Such private enterprises were established in the chief centres of buttermaking — Kourgan, Omsk and some other towns. They were of very little profit to the peasant farmers

of Siberia, who realized very low prices for their milk. Gradually the peasants began on their own initiative to combine for the establishment of co-operative creameries. They usually live in scattered villages, each containing some hundred and fifty or two hundred households, and they are responsible in common for paying rent and dues for their land to the State and for a number of services. Thus there is among them a spirit of solidarity which renders further co-operation easy. The co-operative creameries, called Creamery Artels, have been springing up since 1897. They have met with opposition, for there were usually in each village one or more households of well-to-do peasants who had already established their own private creameries and who did all they could to hinder their co-operative competitors. These prosperous peasants in many cases went as far as to pay for the milk a price which left them no profit on the butter or even involved them in loss. Gradually, none the less, the advantages of co-operation became patent to the population. Yet the movement developed slowly because the individual artels were out of touch with each other, having no central organization for the protection of their interests. Each had to pass through the same cycle of experience.

B) Period of Organization with Government Aid. — Towards the end of the first period buttermaking had become a flourishing and promising industry. The cause of co-operative buttermaking was taken up by Mr. A. N. Balakshin who presented a memorandum to the Ministry of Agriculture in which he set out, in detail, the importance of this industry to Siberia and the necessity of organizing it on co-operative principles. Since co-operative creameries had already appeared in various districts he urged the creation of a central organization which would promote further development on right lines. The suggestions of the memorandum were approved by the ministry, and an "Organization for the Promotion of Co-operative Creameries" which enjoys government assistance was called into life.

The objects of the new organization were : to help in the organization of new artels ; to teach members of artels to manage the business and keep the accounts of these and to supply all kinds of information as to building factories, buying machinery and the like ; to act as intermediary between the artels and firms dealing in butter, settling disputes between them ; to help the artels to obtain credit from governmental, co-operative or private sources ; and in general to care for their successful development and conduct. The government also granted 7,000 roubles towards maintaining the office of the organization and a staff of experts in buttermaking. Mr. Balakshin was given charge of the new organization.

The importance of the government's participation did not lie in the small money grant, but in the fact that official goodwill enabled the organization to hold meetings in the villages and propagate the ideas of co-operation. Within five years, between 1902 and 1907, Mr. Balakshin formed or helped to form 271 creameries, waging meanwhile a war of defence against the attacks of private capitalists and manufacturers. He worked unceasingly for the amalgamation of the separate artels in one central body, and

finally in 1907 he had won over certain of them which agreed to form an union.

C) *The Union of the Creameries.* — Only twelve creamery artels and one co-operative consumers' store took part in the formation of the Union of the Siberian Creamery Associations in 1908. The following table shows the union's growth since that date.

At the end of —	Number of adherent creameries —	Number of stores —	Number of branch offices —	Turnover in roubles —
1908	65	12	2	2,380,000
1909	108	20	3	2,934,000
1910	181	34	5	4,355,000
1911	218	54	5	4,250,000
1912	328	133	7	7,485,000
1913	502	363	11	14,000,000
1914	502	363	16	21,000,000
1915	902	681	16	35,000,000
1916 over 1,000	about 1,000	21	73,000,000	

In October 1917 the members of the union included 1300 creamery artels, 1050 co-operative stores and 21 branch offices. It also had a buying agency in Moscow and wholesale stores at each of its branch offices. It was anticipated that last year's turnover would exceed 100,000,000 roubles. The union owns two printing establishments and publishes a weekly paper, the *Narodnaya Gazette*. Its industrial undertakings include an oil-crushing mill, an engineering shop in Ishim for the repair of agricultural machinery, small rope works in Valoutorovsk and a small soap factory in Kourgan.

Its objects are to organize the sale of butter made by its members on home and on foreign markets, and to buy wholesale all implements and material used in buttermaking and other commodities required by its members. The goods thus bought are sold to the consumers at the shops and stores already mentioned.

The highest authority of the union is its annual general meeting which is attended by a representative for every ten artels, chosen at a branch meeting of delegates from such ten artels in one district. The union's board includes the managing director and the committee of auditors, and is elected for three years from the members of the artels. Similarly the managing boards of the branch offices are elected at branch meetings, and the managers of such branches, who need not belong to the unions, are appointed. The membership of the union is open to creamery artels and consumers' shops and stores but not to individuals; that of the artels to persons engaged on agriculture; that of the shops to a wider circle among the inhabitants of the villages. On joining the union an artel must take up shares for 100 roubles and pay ten roubles to the reserve fund. It must agree to conduct all its business through the union and it becomes collectively responsible to the union for all its liabilities.

The artels conduct their affairs "by mutual agreement directed towards the common advantage of all, according to the decisions of the meeting of the members of the artel entered in a special book". They elect their own officials and managers and their membership is open to all farmers of a given locality on payment of a certain entrance fee. A member may on leaving an artel claim his share of its capital and property only if his secession be due to a change of residence. The artels may open shops for consumers and conduct other business according to the decisions of their members. The union has its own instructors and experts who advise and help individual artels, introducing in them modern methods of buttermaking, and who audit the accounts of the consumers' shops and advise as to these.

D) *The Union and the War.* — The outbreak of war placed the Siberian buttermaking industry in a difficult position: the usual purchasers of butter refused to buy it even at the very low price, half or less than half that usually charged, at which it was offered to them. The union intervened and advised its members not to sell but to store their butter, and then approached the government with a request for advances on the stored butter. This request was granted and the union was therefore able to advance to its members as much as 8 roubles (1) on a pud (2) of butter at a time when the market-price had fallen to 6 roubles a pud. Later the union offered the stored butter to the government for the needs of the army. The offer was accepted and the butter was so bought at 12 roubles 20 kopeks a pud. Thus the union protected the interests both of its members and of buttermaking generally, and compelled private exporters to raise their price for butter to 12 roubles a pud. The increase in the union's business since the outbreak of war, as shown in the table reproduced, is explained by such action.

Most of the butter made in Siberia now passes through the hands of the union. In 1916 the union supplied to the government 90 per cent. of all the butter it received from Siberia, only some 10 per cent. being dealt with by small co-operative organizations.

(1) 1 rouble about 25 x 1½ " at par (2) 1 pud = 40 lbs

Part II: Insurance and Thrift

GERMANY.

THE DEVELOPMENT OF INSURANCE AGAINST HAIL.

SOURCE:

ROHRBECK (W., Dr. jur. and phil., of Cologne): *Die deutsche Hagelversicherung*, in *Wirtschaft und Recht der Versicherung*.—Supplement to *Mitteilungen für die öffentlichen Feuerversicherungs-Anstalten*, published by the *Verband öffentlicher Feuerversicherungs-Anstalten in Deutschland*. 49th year; new series. 6th year, Nos. 1 and 2, 87 pp., Kiel, February, 1917.

§ 1. THE IMPORTANCE OF INSURANCE AGAINST HAIL IN GERMANY.

The study signed by Dr. Rohrbeck, which the Union of Public Institutions Insuring against Hail in Germany has published, is more than customarily helpful to the work of specialists in insurance against hail. All the desiderata which the International Institute of Agriculture may be said to have centralized (1) have indeed not been realized. We know that in this domain the information available for use is never sufficiently detailed. It gives only a fragmentary view of the problem which allows it to be apprehended chronologically rather than geographically. It presents an edifice which is constantly being planned and which can be constructed only stone by stone. We have several times over (2) made use of the slight material which allowed us to study now societies of a particular form, now the business of some of the chief German companies insuring against hail in a particular year; and a review of data which concern all Germany, and which in certain cases apply to a period longer than thirty years, is not without interest to us. It is such a review which Dr. Rohrbeck's study, from which we will borrow the more significant facts, affords us. We will draw upon it largely in this article.

(1) *International Institute of Agriculture, Department of Social and Economic Institutions. L'Assurance-gèle dans quelques pays et ses problèmes*, Rome, 1911; *Idem*, Proceedings of the Fourth General Meeting, 6-12 May 1913; Report of M. O. Bolle, delegate of Belgium and the Grand-Duchy of Luxembourg on insurance against the risks of hail, Rome, 1913.

(2) *Monthly Bulletin of Economic and Social Intelligence* (afterwards *International Review of Agricultural Economics*) 1911, April; 1912, December, pp. 72-75; 1913, June, pp. 55-83; 1914, August, pp. 53-72; September, pp. 45-57; 1915, April, pp. 37-50; 1916, September, pp. 66-68.

It has ceased to be necessary to prove the importance of insurance against hail in Germany. The capital insured in 1907 amounted to 3,152,163,115 marks. In 1909 the insured capital was estimated at 3,175,000,000 marks (1). For 1912 Dr. Rohrbeck quotes the *Assekuranz-Jahrbuch* for 1913 which gives the capital so insured in that year as 3,500,000,000 marks. This yearbook notes that the capital insured against hail throughout the world did not surpass 7,500,000,000 marks. Europe was responsible for 93 per cent. of this amount and Germany for 50 per cent.

§ 2. FREQUENCY AND INTENSITY OF HAIL.

Material for a comparison can also be obtained from the figures for the various Prussian districts and all Prussia furnished by the statistics as to damage occasioned by hail. Both averages and the amount of damage per hectare are given for the years from 1900 to 1909, the last year for which these statistics exist. They concern all arable and garden land :

Regions	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
East Prussia . .	1.51	1.36	0.53	1.39	1.15	0.68	4.35	1.24	1.17	1.07
West Prussia . .	1.77	0.66	0.96	1.33	0.53	2.89	1.69	3.23	1.83	0.29
Brandenburg . . .	0.11	0.91	0.53	0.36	0.90	2.85	1.86	5.09	3.22	0.28
Pomerania . . .	0.99	0.53	0.53	1.07	0.65	2.31	1.08	2.32	2.85	0.95
Posnania	0.55	1.19	1.79	0.62	0.28	2.09	6.41	4.70	5.69	0.29
Silesia	1.19	2.25	4.59	0.63	1.15	2.71	3.38	4.40	5.14	1.82
Saxony	1.49	1.41	1.97	1.70	2.41	6.19	1.53	4.39	8.09	0.70
Schleswig-Holstein . .	0.31	0.13	0.05	0.13	0.24	1.11	0.32	0.35	0.68	0.12
Hanover	0.81	2.88	0.66	3.04	1.31	7.44	1.35	3.23	5.95	0.73
Westphalia	0.84	0.87	1.30	1.49	6.11	2.82	1.14	0.60	3.38	0.82
Hesse-Nassau	3.51	1.82	2.29	0.98	1.34	6.00	2.34	4.59	3.65	0.49
Rhine Province . . .	3.33	0.43	6.78	2.10	1.13	4.50	1.22	0.85	3.28	2.44
Hohenzollern	3.35	1.01	7.35	0.86	1.48	0.50	13.68	2.44	1.35	1.42
Prussia	1.31	1.27	1.88	1.18	1.18	3.19	2.54	3.06	3.83	0.95

It is clear that in Prussia the danger of hail is as much to be feared as its effects are difficult to forecast. During these ten years the importance of the losses per hectare varies considerably. To give a better idea of this circumstance we will arrange in order of amount the differences in the several regions between the maximum and the minimum losses per hectare during the same period. Our figures refer to marks :

(1) *International Institute of Agriculture. L'assurance-grêle dans quelques pays et ses problèmes.* Rome, 1911, pp. 17-18.

	Maximum	Minimum	Difference
Hohenzollern	13.68	0.50	13.18
Saxony	8.09	0.70	7.39
Hanover	7.44	0.66	6.78
Rhine Province	6.78	0.43	6.35
Posnanian	6.41	0.28	6.13
Westphalia	6.11	0.60	5.51
Hesse-Nassau	6.00	0.49	5.51
Brandenburg	5.09	0.28	4.81
Silesia	5.14	0.63	4.51
East Prussia	4.38	0.53	3.85
West Prussia	3.23	0.29	2.94
Prussia	3.83	0.95	2.88
Pomerania	2.85	0.53	2.32
Schleswig-Holstein	1.11	0.05	1.06

These figures indicate approximately which of a determined group of regions suffer most loss from hail, and which of them are as a rule least exposed thereto.

In other parts of the empire other material is used to reach practically the same result. Thus in the kingdom of Bavaria the incidence of hail has been studied from the point of view of the frequency of falls. On this point we have data for the years from 1900 to 1913, completed for the same period by a series of other data which concern, for the several regions of Bavaria, the intensity of the average losses caused by each fall of hail. It will be seen at once that no attempt has been made to distribute the losses over the whole area of the country considered. Only the areas which have had to suffer the effects of the hail have been taken into account, but at the same time the proportion in which the properties and the area of the whole country have been injured has been indicated.

Frequency and Intensity of Falls of Hail in Bavaria.

Year	Communes affected		Areas affected		Losses occasioned		Proprietors suffering loss		
	Number	% of all communes	Hectares	% of cultivated area	Value in marks	Loss per hectare affected — marks	Number	% of all properties	Average loss per proprietor affected marks
1901	1,673	20.9	181,360	3.9	9,195,290	50.7	51,244	7.6	179
1902	1,281	16.0	183,613	4.0	9,703,105	52.8	38,475	5.7	252
1903	1,791	22.4	307,502	6.6	20,951,554	68.1	70,439	10.5	297
1904	800	10.0	63,463	1.5	3,645,285	57.1	22,590	3.4	161
1905	933	11.6	118,142	3.1	12,689,362	107.4	45,787	6.8	277
1906	1,144	14.3	153,527	4.1	8,733,468	56.9	41,328	6.2	209
1907	1,013	13.1	138,349	3.7	8,416,241	60.8	39,462	5.9	213
1908	1,812	22.7	299,118	8.0	22,243,700	74.4	58,181	13.2	252
1909	695	8.7	107,259	2.8	6,871,353	64.1	29,403	4.4	234
1910	1,248	15.6	145,088	3.8	7,766,059	53.5	44,400	6.6	175
1911	995	12.5	109,915	2.9	6,151,732	56.5	31,252	4.7	197
1912	1,197	15.0	116,019	3.0	5,979,160	51.5	40,005	6.0	149
1913	1,716	21.5	176,380	4.5	9,768,432	55.4	47,128	7.0	207

Average Loss per Fall in Marks.

Year	Upper Bavaria	Lower Bavaria	Palatinate	Upper Palatinate	Upper Franconia	Middle Franconia	Lower Franconia	Saxonia	Bavaria
1900	643.4	507.9	126.8	245.4	163.2	243.8	126.6	215.7	274.5
1901	199.9	242.3	153.4	196.7	152.4	119.5	180.4	142.4	179.4
1902	490.1	342.5	14.4	116.6	64.4	105.0	29.6	203.5	252.2
1903	457.5	510.0	33.9	149.6	135.3	100.8	111.0	218.4	297.4
1904	273.1	320.7	94.0	193.8	81.6	194.0	138.6	142.8	161.4
1905	343.4	302.3	311.1	163.2	126.2	157.0	94.7	203.4	277.1
1906	317.2	295.2	51.0	125.1	274.3	136.6	146.9	331.3	208.9
1907	338.0	201.0	68.0	237.0	112.0	199.0	152.0	257.0	213.0
1908	680.0	553.0	152.0	229.0	141.0	197.0	158.0	173.0	232.0
1909	428.0	223.0	161.0	170.0	107.0	86.0	53.0	260.0	234.0
1910	225.0	241.0	100.0	166.0	138.0	206.0	160.0	126.0	175.0
1911	271.0	337.0	168.0	161.0	157.0	149.0	137.0	248.0	197.0
1912	204.0	198.0	176.0	127.0	84.0	187.0	67.0	128.0	149.0
1913	313.0	428.0	116.0	156.0	130.0	174.0	132.0	177.0	207.0

These figures give averages which allow the importance of losses per hectare in these parts of the empire and in Prussia between 1900 and 1909 to be compared. If the whole cultivated area be taken into account we find that in Bavaria, from 1901 to 1913, the following figures, which refer to marks, show the distribution of losses per hectare: 1901 — 2.10; 1902 — 2.11; 1903 — 4.49; 1904 — 8.61; 1905 — 3.33; 1906 — 2.33; 1907 — 2.25; 1908 — 5.95; 1909 — 1.80; 1910 — 1.93; 1911 — 1.63; 1912 — 1.54; 1913 — 2.49. Thus the minimum was 1.54 and the maximum 8.61, which gives a difference of 7.07 in a period of thirteen years.

The figures for the grand-duchy of Baden also concern the frequency and intensity of falls of hail, but they do not indicate the extent of the whole cultivated area and therefore lack one element allowing of a comparison. They allow however the intensity of losses per cultivated hectare affected to be calculated for the period from 1900 to 1914.

Frequency and Intensity of Falls of Hail in Grand Duchy of Baden.

Year	Number of falls of hail	Number of communes affected	Area affected hectares	Total amount of losses marks	Average amount of losses per hectare cultivated marks
1900 . . .	67	316	23,651	1,657,998	70.10
1901	51	253	22,529	1,779,478	78.98
1902 . . .	47	288	23,654	2,256,549	95.34
1903 . .	40	210	17,652	1,479,610	83.82
1904 . . .	37	240	20,614	1,812,138	87.90
1905 . . .	45	416	52,449	8,748,197	166.79
1906 . . .	51	334	30,354	2,707,737	89.20
1907 . . .	39	305	27,892	2,689,036	96.40
1908 . .	40	440	43,588	4,748,385	108.33
1909 .	38	226	23,286	1,753,488	75.30
1910 . . .	58	486	50,798	5,451,302	107.31
1911 . .	38	329	23,763	2,700,047	113.62
1912 . . .	54	395	31,037	3,386,218	109.10
1913 . . .	40	261	16,186	2,613,656	161.47
1914	42	326	25,883	2,412,116	93.27

The figures referring to the grand-duchy of Hesse for the years from 1900 to 1915 include only those showing the areas affected and damaged and the total losses suffered. We can further deduce from them the amount of loss per hectare incurred by the lands affected.

Year	Area affected hectares	Total amount of losses mark.	Average amount of losses per hectare affected marks
1900	16,705	1,702,518	105.52
1901	3,591	102,439	45.23
1902	1,380	74,103	53.69
1903	4,302	336,378	78.19
1904	1,789	122,738	68.60
1905	3,265	165,388	50.65
1906	3,600	266,431	74.00
1907	19,943	1,711,929	85.84
1908	12,838	1,968,815	153.35
1909	1,299	25,224	19.41
1910	8,546	585,204	68.47
1911	6,641	1,088,919	163.96
1912	2,908	343,272	118.04
1913	2,459	128,736	52.35
1914	1,388	107,603	77.52
1915	1,042	84,582	81.17

The intensity of the incidence of hail in the kingdom of Wurtemberg is envisaged in yet another manner. As elsewhere the basis of the estimate of frequency is the number of days on which hail fell, which may be very near the number of falls, but the results are represented only by an estimate of the areas in which the falls have had their full destructive effect. The following are the figures on this point given in the publication we are examining :

Frequency and Intensity of Hail in the Kingdom of Wurtemberg.

Year	Number of days of hail	Total cultivated area suffering complete loss hectares
1900	11	6,939
1901	13	5,191
1902	6	4,703
1903	8	14,983
1904	11	3,821
1905	11	5,552
1906	8	13,703
1907	9	5,305
1908	8	2,228
1909	5	4,655
1910	9	4,182
1911	6	1,186
1912	49	7,537
1913	48	3,563
1914	54	4,611

The various data we have given as to different districts or countries of Germany bring before us different methods of estimating losses. Let us then briefly recal that in Prussia the total amount of losses has been distributed over the area of cultivated or cultivable lands; in Bavaria the distribution is made only over affected areas, but since count has been kept of losses it has been possible to estimate the average loss occasioned by a fall of hail; in the grand-duchies of Baden and Hesse the total losses are estimated only in relation to the affected areas; and in Wurtemberg the available figures concern only the areas in which falls of hail have occasioned the maximum loss.

Obviously the results of these various systems could, by giving some approximate figures, be used for a comparison, which would however be of interest only in so far as the conditions of insurance had been completely unified.

§ 3. DISTRIBUTION OF LOSSES OVER KINDS OF CROPS.

Another element enters into a rightful estimation of losses by hail, that namely of the proportion in which losses are incurred by the various kinds of crops. We must content ourselves unfortunately with the available data, which concern only Wurtemberg and the grand-duchy of Baden; for the figures referring to Bavaria show only the damage done to agricultural produce by other agents than hail, and that only within those districts in which such damage is known to have been inflicted.

The following table shows the percentages of the total loss which have been incurred by the various kinds of crops:

Year	Cereals	Leguminous plants	Tubercles	Root crops	Forage	Grass	Industrial plants	Gardens	Hops	Vines	Fruit
1900	73.7	0.4	2.0	1.4	4.8	5.7	0.8	0.8	—	5.5	4.9
1901	66.6	1.8	6.1	4.6	1.6	2.2	0.6	1.1	3.8	5.8	5.5
1902	67.6	1.8	6.3	3.7	4.2	3.7	0.02	0.5	0.01	—	12.2
1903	52.7	1.1	7.4	3.1	3.0	5.8	0.4	1.5	0.5	20.5	3.7
1904	52.7	2.0	4.4	1.7	3.6	9.2	0.4	0.5	2.6	11.5	11.4
1905	35.7	1.3	1.4	2.1	0.7	1.1	3.6	0.1	0.9	48.6	1.2
1906	66.7	1.0	7.1	2.5	4.9	3.4	1.9	0.5	3.2	3.0	5.8
1907	58.1	0.7	7.5	2.0	4.6	3.5	0.9	0.6	10.8	10.6	0.7
1908	30.5	0.4	2.2	1.8	12.6	6.7	0.5	0.8	0.2	41.3	3.0
1909	67.4	0.7	0.1	1.0	11.5	12.8	0.3	0.3	0.7	0.7	4.2
1910	47.6	0.5	8.6	2.2	3.7	4.8	0.3	0.3	0.1	15.1	16.8
1911	66.4		4.8		5.3		0.3	1.0		18.7	3.5
1912	44.3				8.6			13.2 *		22.2	11.7
1913	47.6				8.0			27.3 *		16.2	0.9
1914	46.7				5.9			15.7 *		25.3	6.4
1915	81.7				9.1			8.4 *		—	0.8

* Including crops grown as forage.

It is quite evident that the crops which in Wurtemberg suffer most loss from hail are the cereals, for, in round figures, from 30 to 80 per cent. of the total loss is registered as falling on them. The damage done to vineyards is also considerable, and is moreover extremely irregular for the figures having reference to it show that it varies from a minimum of 0.7 to a maximum of 48.6 per cent. As regards other crops, the loss to leguminous plants varies from 0.4 to 2 per cent., that to tubercles from 0.1 to 8.6 per cent. that to root crops from 1 to 4.6 per cent., that to industrial crops from 0.02 to 3.6 per cent., that to hops from 0.1 to 10.8 per cent. and that to fruit from 0.7 to 16.8 per cent. We have purposely left forage, grass and garden crops out of account, for from 1911 onwards they were subject to rearrangements which make estimates less certain.

The following figures are yielded by the method applied to insurance against hail in the grand-duchy of Baden.

Year	Cereals and leguminous plants	Potatoes, forage beetroot, chicory	Forage plants	Oleaginous fruits	Hemp and flax	Products of prairies	Tobacco	Hops	Vines	Fruit	Vegetables
1900	50.6	1.4	2.6	0.1	0.3	2.3	13.4	0.8	16.7	7.6	1.3
1901	63.3	3.9	2.3	0.5	0.2	3.3	3.1	0.2	20.0	2.1	1.2
1902	15.0	3.3	1.5	0.4	0.1	1.5	4.3	0.1	31.6	7.1	5.2
1903	47.1	4.0	2.0	0.8	0.1	1.5	11.1	0.5	28.4	3.0	1.5
1904	54.8	4.7	1.7	0.1	0.2	2.8	6.2	0.5	22.4	5.0	1.6
1905	17.1	11.11	3.0	0.5	0.4	2.2	21.4	1.2	33.4	7.8	1.8
1906	63.1	7.7	2.6	0.6	0.1	2.3	2.3	0.9	10.2	9.2	1.0
1907	59.2	3.9	5.7	0.3	0.1	4.6	0.3	0.7	16.3	7.5	1.5
1908	48.0	0.9	4.1	0.6	0.0	4.1	2.3	0.3	21.7	16.0	1.5
1909	50.0	4.6	6.3	0.1	0.1	4.5	12.0	0.2	9.0	3.5	0.7
1910	47.5	8.5	4.5	0.6	0.0	2.3	4.6	0.2	23.0	8.0	1.0
1911	55.6	4.1	0.4	0.2	0.0	2.8	3.0	0.1	19.4	3.8	1.4
1912	68.0	2.2	1.9	0.4	0.0	2.5	4.9	0.4	13.0	5.1	1.6
1913	37.0	0.8	1.3	0.1	0.0	2.5	2.2	0.8	45.8	8.7	1.2
1914	61.2	6.8	1.5	0.5	0.0	0.5	7.7	0.1	15.5	5.7	1.0

As in the case of Wurtemberg the highest percentages represent the losses to cereals. The minimum of 17.1 per cent. and maximum of 68 per cent. are however also applicable to leguminous plants, the two categories being considered together. In the category which comprises potatoes, forage beetroot and chicory the percentage of the total loss varies from 0.8 to 11.11. For forage plants the minimum is 1.3 and the maximum 9.4; for oleaginous fruits the minimum is 0.1, the maximum 0.8; for textile plants they are respectively 0 and 0.4, for prairies 0.5 and 4.6, for tobacco

0.3 and 21.4, for hops 0.1 and 1.2, for vines 9 and 45.8, for fruit crops 2.1 and 16, for vegetables 0.7 and 5.2.

The absolute amount of the losses in each year considered was indicated in dealing with the frequency and intensity of hail in the grand-duchy of Baden.

§ 4. SOCIETIES INSURING AGAINST HAIL.

To cover the risks of which we have spoken 39 organizations in Germany now insure against hail, four of them being stock companies and 35 of them mutual societies. The latter are either public or private in form. Those which are private are sometimes territorial, in which case their operations extend over more than one State of the empire, in Prussia over more than one province ; or else they are local societies which cover the risks of one State or province at the most, or of certain parts of several States or provinces. The territory over which the business of the stock company extends is not limited.

Only in Bavaria is there a public institution, administered by the State, which insures against hail. It is attached to the Fire Insurance Chamber founded in 1875.

Among the territorial mutual societies there are five whose business extends over all the empire ; that of one extends over the empire outside Bavaria ; that of another over the empire outside Wurtemberg, the grand-duchies of Baden and Hesse and Alsace-Lorraine ; that of another over Prussia, Wurtemberg and Mecklenburg ; and that of yet another over all Prussia.

Among mutual institutions having a purely local character there are 17 unions in Prussia, of which nine are in Schleswig-Holstein, four in Hanover, two in Westphalia, one in Brandenburg and one in West Prussia. There are further three such unions in the kingdom of Saxony, two in the grand-duchy of Mecklenburg, one in the grand-duchy of Oldenburg and one in the free town of Lübeck.

§ 5. THE VALUES INSURED.

The values insured against hail amounted to 3,652,595,376 marks in 1914 and to 4,157,691,390 marks in 1915.

These two amounts which show a progress covering, in round figures, two billion marks, are distributed as follows among societies of the two groups :

	1914		1915	
	marks	Percent. of total	marks	Percent. of total
Stock companies	900,299,015	24.6	983,655,083	23.8
Mutual societies	2,752,296,361	75.4	3,174,036,307	76.2

Thus the value insured against hail has increased in both groups of societies, but the calculated percentages show the different character of the progress made in either case, for the increase of the absolute value covered by the stock companies is translated, in terms of percentage, into a reduction of 0.8 per cent., while in the case of the mutual societies the increase of the value insured is accompanied by an increase of 0.8 in the percentage. It may be interesting to follow up this clue later.

As we saw in § 4, the mutual societies are themselves divided into public and private societies. The figures just quoted, which refer to mutual societies, are therefore distributed as follows :

	1914		1915	
	marks	Percent of total	marks	Percent of total
Public mutual societies	318,410,860	8.7	311,184,400	7.5
Private mutual societies	2,433,885,501	66.7	2,862,851,907	68.7

It is worth while to insist on the fact that both the absolute and the relative figure has diminished in the case of the public mutual societies, while in that of the private mutual societies it has increased in a proportion relatively great, in view of the fact that the period in question is only a year. This increase is equal to exactly 2 per cent. of the total amount of the sums insured.

These private mutual societies comprise both territorial and local societies, according to the definition of these already given. We are therefore able to consider some new details, still as regards the distribution of the amount of the sums insured.

	1914		1915	
	marks	Percent of total	marks	Percent of total
<i>Private Mutual Societies :</i>				
Territorial	2,196,916,248	60.2	2,537,851,907	60.9
Local	236,969,253	6.5	325,000,000	7.8

Thus the local societies seem to have made relatively most progress, since insuring at first 6.5 per cent. of the total value, at the end of a year they insured 7.8 per cent. thereof. Perhaps societies of this type are best suited to the needs of insurance against hail.

If we now consider that in the period from 1881 to 1915 the total value insured amounted to 91,174,953,694 marks, and if we distribute this sum among the various kinds of societies, we find that the progress we have noted becomes more evidently significant :

	marks	% of total
Stock companies	32,099,441,268	35.2
Mutual societies	59,061,511,057	64.8
Public mutual societies	5,578,014,851	6.1
Private mutual societies	53,483,496,106	58.7
Private mutual societies: Territorial	48,182,463,571	54.0
Private mutual societies: Local . .	4,301,032,635	4.7
Foreign societies	14,001,369	0.014

§ 6. PREMIUMS.

In 1914 and 1915, the two years for which we have rapidly examined the insured values, the amount of premiums was as follows.

	Marks	% of Insured Sums
1914	44,076,440	1.21
1915	36,426,621	0.89

The amount of the premiums has thus been much diminished although that of the insured sums has increased by 500 millions.

These sums are distributed as follows among the various groups of societies :

	1914			1915		
	Marks	% of total pre- miums	% of total in- sured sums	Marks	% of total pre- miums	% of total in- sured sums
Stock companies . .	10,318,963	23.4	1.14	11,079,026	29.8	1.12
Mutual societies . .	33,757,457	76.6	1.23	25,847,595	70.2	0.82
Public mutual societies	4,992,443	11.1	1.57	4,486,685	12.2	1.44
Private mutual societies	28,765,014	65.5	1.19	21,360,910	58.0	0.75
<i>Private mutual societies</i>						
territorial	27,626,748	62.9	1.25	19,530,910	53.0	0.77
local	1,138,266	2.6	0.48	1,830,000	5.0	0.56

The total amount of premiums from 1881 to 1915 was distributed as follows among the various groups of societies :

	Total amount of premiums marks	% of total premiums	% of total insured sums
Stock companies	321,501,961	32,6	1,00
Mutual societies	665,366,011	67,4	
Public mutual societies	82,190,502	8,3	1,47
Private mutual societies	583,175,509	59,1	
Territorial private mutual societies	556,322,748	56,4	1,13
Local private mutual so- cieties	26,852,761	2,7	
Foreign societies	139,602	0,014	1,0
Total	987,007,574	100. —	1,08

Here as before we observe the increasing interest which attaches to mutual societies, We will not insist on the point, for it is natural that in the case of the societies the amount of the premiums, and also the proportion of the premiums to the insured sum, should diminish progressively; but it is the more significant that it is the local mutual societies which here hold the record.

The premiums are divided into two parts: where mutual societies are concerned the sums insured in 1914 and in 1915 have been covered as follows and in the following proportion in the various groups of societies:

	1914		1915	
	Insured sums marks	% of total	Insured sums marks	% of total
<i>Covered by fixed premiums</i>	1,218,709,875	33.4	1,294,839,483	31,0
Whereof: in stock companies	900,299,015		983,655,083	
Whereof: in the Bavarian Institute	318,410,860		311,184,400	
<i>Covered by initial and additional premiums</i>	1,882,973,465	51.5	2,149,400,991	51.7
Whereof: in territorial private mutual societies	1,861,600,975		2,127,773,581	
Whereof: in local private mutual societies	21,372,490		21,627,410	
<i>Covered by premiums on a distributory system</i>	550,912,036	15.1	713,450,916	17.3
Whereof: in territorial private mutual societies	335,315,273		410,078,326	
Whereof: in local private mutual societies	215,596,763		303,372,590	

The premiums are distributed among the various groups as follows:

	1914			1915		
	Amount of pre- miums marks	% of total pre- miums	% of sums insured	Amount of pre- miums marks	% of total pre- miums	% of sums insured
<i>Fixed premiums</i>	15,311,426	34.8	1.25	15,565,711	42.1	1.21
<i>Stock companies</i>	10,318,983			11,079,026		
<i>Bavarian Institute</i>	4,992,443			4,486,685		
<i>Initial and additional premiums</i> . .	24,070,196	54.6	1.28	16,045,765	43.5	0.75
<i>Territorial private mutual societies</i> .	23,918,264			15,909,020		
<i>Local private mutual societies</i> . . .	151,932			136,745		
<i>Premiums on a distributory system</i> .	4,694,818	10.6	0.86	5,315,145	14.4	0.75
<i>Territorial private mutual societies</i> .	3,708,585			3,621,890		
<i>Local private mutual societies</i> . . .	986,334			1,693,255		

§ 7. INDEMNITIES.

The following were the amounts of indemnities paid to those insured against hail in 1914 and 1915.

	Marks	% of sums insured
1914	34,236,051	0.93
1915	25,741,816	0.62

The distribution among groups of societies was as follows:

	1914			1915		
	Indemnities paid marks	% of total inden- nities	% of sums insured	Indemnities paid marks	% of total inden- nities	% of sums insured
<i>Stock companies</i>	4,837,447	14.1	0.53	3,579,856	13.9	0.36
<i>Mutual societies</i>	29,398,604	85.9	1.07	22,161,964	86.1	0.70
<i>Public mutual societies</i>	3,746,302	10.8	1.17	3,173,472	12.1	1.02
<i>Private mutual societies</i>	25,652,302	75.1	1.06	18,988,488	74.0	0.67
<i>Territorial private mutual societies</i> . .	24,941,273	73.7	1.13	16,988,488	66.0	0.67
<i>Local private mutual societies</i>	711,029	2.2	0.30	2,000,000	8.0	0.62

From 1881 to 1915 the total sums paid as indemnities gave the following figures:

	Indemnities including costs	% of total	% of sums insured
<i>Stock companies</i>	224,275,302	27.4	0.70
<i>Mutual societies</i>	592,813,698	72.6	
<i>Public mutual societies</i>	73,641,473	9.0	1.32
<i>Private mutual societies</i>	519,172,225	63.6	
<i>Territorial private mutual societies</i> . .	495,856,069	60.8	1.01
<i>Local private mutual societies</i>	23,316,156	2.8	
<i>Foreign societies</i>	109,283	0.013	0.78
Total	817,198,283		0.90

If we calculate the proportions in which the costs of indemnities were borne by the various kinds or various parts of premiums in the two years specially considered — 1914 and 1915 — we obtain the following results :

	1914			1915		
	Indemnities including costs marks	% of total indemnities	% of sums insured	Indemnities including costs marks	% of total indemnities	% of sums insured
<i>Covered by fixed premiums . . .</i>	8,583,749	25.1	0.70	6,753,328	26.2	0.52
<i>in stock companies</i>	4,837,447			3,579,856		
<i>in the Bavarian Institute . . .</i>	3,746,302			3,173,472		
<i>Covered by initial and additional premiums, . . .</i>	21,047,835	61.5	1.12	13,707,095	53.4	0.64
<i>in territorial mutual societies . .</i>	20,924,390			13,655,221		
<i>in local mutual societies</i>	123,245			40,874		
<i>Covered by premiums on a tributary system</i>	4,604,467	13.4	0.84	5,281,393	20.4	0.74
<i>in territorial mutual societies . .</i>	4,016,883			3,322,267		
<i>in local mutual societies</i>	587,584			1,959,126		

§ 8. COSTS OF ADMINISTRATION.

In 1914 and 1915 costs of administration were as follows :

	marks	% of sums insured
1914	5,755,002	0.17
1915	5,880,221	0.15

These sums were distributed as follows among the various groups of societies :

	1914			1915		
	Marks	% of total	% of sums insured	Marks	% of total	% of sums insured
Stock companies	1,706,960	29.6	0.19	1,749,267	29.6	0.18
Mutual societies	4,046,042	70.4	0.16	1,130,954	70.4	0.14
Public mutual societies	385,921	6.7	0.12	373,528	6.3	0.12
Private mutual societies	3,661,121	63.7	0.17	3,777,426	64.1	0.15

From 1881 to 1915, costs of administration amounted altogether to the following sums :

	Total costs of administration marks	% of total	% of sums insured
Stock companies	66,479,936	42.0	0.21
Mutual societies	92,098,552	58.0	0.17
Public mutual societies	2,820,161	1.8	0.05
Private mutual societies	89,278,391	56.2	0.18

Total . . . 158,578,488

§ 9. RESERVE FUNDS. RESERVE FUNDS AND SPECIAL RESERVES.

In 1914 and 1915 the reserves were represented by the following sums :

	Marks	% of sums insured
1914	38,971,122	1.14
1915	44,578,004	1.16

They were distributed among the various kinds of societies as follows :

	1914			1915		
	Total reserves marks	% of total	% of sums insured	Total reserves marks	% of total	% of sums insured
Stock companies	12,454,942	32.3	1.39	14,724,501	33.0	1.50
Mutual societies	26,516,180	67.8	1.05	29,853,503	67.0	1.05
Public mutual societies . .	16,602,938	42.5	5.24	18,389,061	41.2	5.92
Private mutual societies . .	9,913,242	25.3	0.45	11,464,442	25.8	0.45

In the period from 1881 to 1915 the reserves reached altogether the following amounts :

	Reserves marks	% of total reserves	% of sums insured
Stock companies	202,435,341	45.0	0.63
Mutual societies	247,843,051	55.0	0.45
Public mutual societies . .	162,064,161	36.0	2.90
Private mutual societies . .	85,778,818	19.0	0.17
Total . . .	450,278,392		

(to be continued).

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES.

CANADA.

AMENDMENT OF THE LAW ON MUNICIPAL INSURANCE AGAINST HAIL, —
The Grain Growers' Guide, Winnipeg, 5 December 1917.

We recently gave an account of municipal insurance against hail in Saskatchewan, showing the difficulties which the organization encountered in 1916 in paying for the damages which the crops incurred by falls of hail in that year, and explaining the devices by which it was proposed to remedy the defects of the system (1).

Such proposals have partially become law, for in March 1917 the parliament amended the Municipal Hail Insurance Act of 1917, already amended in 1915.

The chief effects of the amendments are as follows :

The execution of the Act is no longer entrusted to a commission of three members, but to a board of nine members and an executive committee of three members. A municipality adhering to the scheme may no longer repeal the by-law bringing it under the Act in any year, unless the municipal council receive a petition for such repeal signed by at least 25 per cent. of the resident ratepayers of the municipality. It is hoped that the organization will thus secure greater financial stability.

The amount of the indemnity payable for damage to a crop remains unchanged, and therefore the rate is still five cents an acre for every one per cent. of damage incurred, that is \$5 an acre where total loss is suffered. Henceforward however the association may by a by-law :

a) limit the total indemnity to be paid on each quarter section (2) on which the rate of four cents per acre only is levied ;

b) arrange for an additional rate per acre on land actually under crop, to be collected in the same manner as the flat rate provided such additional rate be not imposed without the consent of the person taxed.

No such by-law shall come into effect until the year next following that in which the association adopts it in general meeting. So far no by-law of this sort has been adopted, so that indemnities are still payable as before.

Under the amended Act the following lands can be withdrawn from assessment :

" a) Quarter sections or more, entirely fenced and used for hay or pasture purposes.

(1) See our issue for May 1917, page 34.

(2) i. e. 160 acres

" b) Unpatented homesteads, pre-emptions purchased homesteads with less than 40 acres under cultivation.

" c) Quarter section or more with less than 40 acres under cultivation and the balance of the quarter fenced and used for hay or pasture purposes.

" d) Any land where the area owned by one party is less than 640 acres can be withdrawn, regardless of whether it is fenced or not, provided that at least 25 per cent. of the land is under cultivation.

" e) Any land where the acreage owned by one party is more than 640 acres can be withdrawn, provided that at least 50 per cent. is under cultivation".

In cases a) and b) application must be made annually in writing before 1 June in each year to the secretary of the municipality for the land to be withdrawn. In cases d) and e) application must be similarly made, and if permission is granted the land will be withdrawn for three years. It is hoped that these increased opportunities of withdrawal will cause greater advantage to be taken of the system of insurance.

The following figures complete those given in our previous article to show the working of the system :

	1916	1917
Number of municipalities under the Act	139	237
Net revenue	\$ 979,312	about \$ 930,000
Number of claims received	11,000	" 5,000
Amount paid in claims	(1) \$ 1,460,296	" \$ 830,000
Costs of administration	\$ 59 468	" \$ 40,000

(1) or 40 % of the losses which amounted to \$ 3,650,743.

ITALY.

THE FORMATION OF THE " FEDERAZIONE NAZIONALE DELLA MUTUALITÀ E PREVIDENZA " — By-laws of this federation, Genoa, 1917.

In response to a vote of an important meeting of Catholic co-operative and mutual societies held at Genoa last August (1), a National Federation, of Mutuality and Thrift has recently been formed. It has the following objects : a) to care for the development and working of existing societies, mutual aid funds and mutual trade societies and for the institution of more such, grouping them in local federations ; b) to help, advise and inspect the federated societies on administrative, technical and legal points, and to complete them by instituting funds of reinsurance and complementary insurance and every other kind of agency fitted to increase their usefulness ; c) to assume the representation and guardianship of relations with the State

(1) See in this connection *Azione sociale*, the organ of the *Unione Economico-Sociale tra i Cattolici Italiani*, Faenza, No. 16, 15 to 31 August 1917.

authority ; and *d*) to set up chairs of mutuality and thrift and offices for statistics and for the study of problems regarding society insurance and similar subjects. There may belong to the federation all societies and funds of mutual aid and men's and women's trade societies which fulfil the requirements of the by-laws and base their work on the following criteria : *a*) a right technical management ; *b*) the autonomous and free co-ordination of the institutions of mutuality as the law allows ; *c*) the effective recognition of the moral, religious and national principles and sentiments of members. The federation treats with single societies by the medium of the respective local federations, and where a local federation does not exist promotes its formation and institutes secretaries who provisionally fulfil its functions. It conducts its work by means of the National Congress and the Central Committee. The former consists of representatives of the national unions of funds affording mutual aid, and of the local federations and secretariats, in the proportion of one representative for every thousand or fraction of a thousand members regularly inscribed at the National Federation. The congress meets normally in the second quarter of every other year, and extraordinarily at the request of the Central Committee or of at least a fifth of the entities having the right to a vote. The ordinary meeting approves the report on moral activity and finances, elects the Central Committee, the chairmen and office-bearers, and deals with the other business placed on the agenda by the Central Committee. The latter is composed of the president and of other ten members elected by the Congress every two years. It meets at least once in three months to provide for the good working of the federation, for the choice of the staff and for the working of the various offices.

Arbitrating committees, consisting of technical, medical and legal inspectors, may also be formed as well as committees for propaganda and other agencies useful to administrative technique

HUNGARY.

INSURANCE AGAINST HAIL IN 1916. — *Ungarische Assekuranz Courier*.

The nine Hungarian societies which formed the so-called " hail convention ", had to meet in 1916 a total loss of about 2,000,000 crowns (1). Premiums received in the year in question amounted to 14,373,768 crowns and indemnities, including costs of estimates, 13,649,188 crowns, to which must be added 2,785,623 crowns as costs of administration and fees.

The chief data referring to insurance against hail in 1915 and 1916 are as follows :

Year	Number of Policies	Number of Indemnities	Premiums Received	Indemnities Paid
—	—	—	—	—
			Crowns	
1915	42,874	15,395	12,643,760	7,701,589
1916	43,981	16,597	14,373,768	12,899,188

(1) 1 crown of gold = about 102 at par.

In 1916 abundant falls of hail were registered, as is proved by the sum of the indemnities which became due from the nine societies united in the convention; but it is clear that societies which did not belong to the convention also closed the year with losses, for indemnities and costs, both actual and estimated, exceeded premiums received in the case of these societies also.

If 1916 was an unfavourable year for insurance against hail in Hungary it was even more so in Austria, where not only was the damage done by hail greater than in Hungary, but premiums were also not received from the occupied territories in Galicia and Bukovina, the contributions from which normally represent no despicable sum.

As an immediate consequence of the unfavourable state of affairs in Hungary an increase in the premiums for insurance against losses occasioned by hail is to be expected at no distant date.

The increase will vary from 10 to 15 per cent. in proportion to the losses incurred in the different regions. The new common tariff will be compiled by the convention mentioned already.

SWITZERLAND

INFLUENCE OF THE WAR ON AGRICULTURAL INSURANCE. — *Zeitschrift für schweizerische Statistik und Volkswirtschaft*, 53rd Year, No. 1, 1917.

In the first number of the *Zeitschrift für schweizerische Statistik und Volkswirtschaft* for the current year Dr. Hermann Renfer, vice-manager of the Swiss Office of Insurance at Berne, publishes an important article on the reaction of the war on private insurance, especially that practised in Switzerland by the authorized insurance societies (1). We will briefly give his data and conclusions in so far as they concern the most important branches of agricultural insurance, namely insurance of live stock and insurance against loss by hail.

a) Insurance of Live Stock, especially Horses

In consequence of the war the number of horses insured has diminished, owing to the elimination of many of the risks insured as a result of the purchase and hiring of horses by the military authorities. Another circumstance contributing to the same result has been that since the outbreak of hostilities the importation of horses has diminished very much or even totally ceased. Moreover instead of at once filling the vacancies caused by sales some owners have put off purchasing until after the conclusion of peace, not wishing to pay the present very high prices. Inevitably these facts have indirectly affected receipts under the head of premiums.

The total premiums received and sums insured from 1913 to 1915 by the insurance societies active in Switzerland were as follows:

(1) *Einwirkung des Krieges auf die private Versicherung und insbesondere auf die in der Schweiz konzessionierten Versicherungsgesellschaften*. Pages 73 to 112 of the publication cited above.

Years	Premiums received	Sums insured
—	—	—
	francs	francs
1913	638,318	17,573,550
1914	608,295	19,540,527
1915	519,364	13,104,321

The figures representing losses have noticeably increased during the war.

It was hoped that mobilization would lead to a diminution in the amount paid for losses but such has not been the case. In Switzerland horses insured by the institutes of insurance were mostly valued at a higher rate than those insured by the federation. Therefore the insurance societies were obliged to remit a difference between the federal valuation and the maximum indemnity quota corresponding to the difference between four fifths and three fourths of the insured sum. Afterwards the mortality among the unrequisioned horses increased, a natural consequence of the fact that it was the best and most serviceable horses which were taken over by the military authorities.

It should also be remembered that the remaining horses have been exploited to the utmost limit owing to the lack of draught animals, and for this very reason have often formed complete losses when normally they might have had a further use as butcher's meat. The heightened price of forage has not failed to have disastrous effects; there have been cases of owners of live stock who have sold at very high prices the oats intended for the beasts which were dying of hunger in their stalls. The losses suffered by the four societies for the insurance of live stock authorized to do business in Switzerland are expressed, in so far as Swiss transactions are concerned, by the following figures :

Years	Amount of losses	Percentage of sums insured
—	—	—
1913	511,145	3.08
1914	486,023	2.49
1915	481,580	3.67

Although the total amounts paid for losses diminished in 1914 and 1915 in so far as data are known, the percentage of the insured sums constituted by losses increased in 1915, so far as Swiss business was concerned, as appears from the figures given.

There has been difficulty in estimating losses because most of the veterinary surgeons have been called to the army and sent to the frontier, and the lack of this supervision has caused sick horses to be less well cared for.

Another fact consequent on the war has caused the position of this branch of agricultural insurance to deteriorate in Switzerland. There are in the country a number of insurance associations scattered over almost all the cantons and not subject to the supervision of the Federal Council.

So soon as a canton or an association of owners of live stock declares

the insurance of live stock to be compulsory within a well defined territory, namely one or more communes, one or more districts or one canton, the Swiss Federation pays to the cantons, in accordance with the federal law of 22 December 1893 as to federal measures for the improvement of agriculture, subventions equal to those which the cantons themselves grant to the insurance associations. These subventions are shown by the following figures :

Years	Losses indemnified — francs	Cantonal subventions — francs	Federal subventions — francs
1913	4,314,147	1,084,043	1,084,043
1914	4,274,994	1,104,032	1,004,
1915	3,421,622	1,021,870	791,347

The war has caused in Switzerland a tendency to reduce budgeted expenses : by the application of the decree of the Federal Council, dated 30 October 1914, the federal subvention was fixed at 1 franc per head of cattle insured and 0.40 franc per head of small live stock. The preceding figures allow the economies realized by the federation in 1914 and 1915 by applying this decree to be understood.

b) Insurance against Loss by Hail.

The reaction of the war on hail insurance is for obvious reasons not comparable with its reaction on live stock insurance. The state of war could not essentially modify the position of the former, in view of the fact that artillery firing, which could, it was thought, lessen or even eliminate the fall of hail, has shown itself to have no such effect. In 1915 numerous and abundant falls of hail were recorded. For that matter the experiments made before the war with anti-hail guns ought to have left no illusions on this point.

However other factors depending on the war influenced the two societies which insure against hail in Switzerland. At the mobilization at the beginning of August 1914 many experts usually entrusted with the work of noting and estimating the losses caused by hail were mobilized, and mobilized moreover at harvest-time when there was most need for their services.

It is clear that delayed estimates entail increased indemnities. Then the financial crisis forced the banks to grant repayments only from time to time and in small sums. The societies disposed only of small sums in cash and therefore found it difficult enough to procure the funds necessary for the payment of indemnities falling due in October. The Cantonal Bank of Zurich saved the management of the larger of the two societies concerned by a grant of the necessary sums. The sums insured, the receipts under the head of premiums and the indemnities paid showed no effects of the war. The following are the relevant figures for 1913, 1914 and 1915 :

Years	Sums insured	Premiums	Indemnities
—	francs	francs	francs
1913	71,772,796	1,107,435	902,053
1914	81,425,914	1,337,817	531,221
1915	91,037 111	1,332,103	1,392 798

The most that can be concluded from these figures is that in 1914 and 1915 a greater number of insurable crops were cultivated than in 1913. There was little hail in 1914 but in 1915 there were abundant falls of hail.

The war reacted on hail insurance in consequence of the financial conditions which it imposed on the Confederation. Hitherto the Confederation had paid to the cantons as an indemnity, in accordance with the aforesaid federal law of 22 December 1893 on the improvement of agriculture, 50 per cent. of the sums which the cantons granted to agriculturists insured against hail. By the federal decree of 11 December 1914 modifications were introduced of the cases in which this subvention could be granted, and of its amount which cannot now exceed 20 per cent. of premiums for insuring vines and 12 ½ per cent. of those for insuring other crops, and 50 per cent. of the net costs of a policy. This measure of economy ought to bring about a juster distribution among the cantons and yet not fall too heavily on the insured. The saving realized by the confederation by means of this measure appears from the following figures :

Years	Expenditure of cantons including federal subventions	Federal subventions	Percentage
—	francs	francs	—
1912	522,792	261,390	50
1913	433,321	216,661	50
1914	522,917	261,458	40
1915	473,674	225,306	47

The saving is seen not to be very considerable but to be of the nature of an annual modification.

Part III: Credit

ITALY.

THE REGULATION AND DEVELOPMENT OF AGRICULTURAL CREDIT IN SARDINIA.

SOURCES:

- ANNALI DEL CREDITO E DELLA PREVIDENZA, ANNO 1911, N. 90: LA LEGISLAZIONE ITALIANA SUL CREDITO AGRARIO. (*Annals of Credit and Thrift*, 1911, No. 90: *Italian Legislation on Agricultural Credit*) Historical and critical study by Alessandro Baccaglioni, Ministry of Agriculture, Industry and Commerce. Direzione Generale del Credito e della Previdenza. Rome, Bertero, 1911.
- TESTO UNICO DELLE LEGGI CONTENENTI PROVVEDIMENTI PER LA SARDEGNA, 10 NOVEMBRE 1907 (*Combined Text of Laws containing Provisions for Sardinia*, 10 November 1907, No. 844. *Gazzetta Ufficiale del Regno d'Italia*, Rome, No. 57, 9 March 1908.
- DECRETO-LEGGE LUOGOTENENZIALI DEL 23 AGOSTO 1917, N. 1592, CHE MODIFICA LE DISPOSIZIONI SUL CREDITO AGRARIO IN SARDEGNA contenute nel predetto testo unico (*Lieutenancy decree-law of 23 August 1917, No. 1592, modifying provisions as to agricultural credit in Sardinia in the aforesaid combined text*). *Gazzetta Ufficiale del Regno d'Italia*, Rome, No. 240, 11 October 1917.
- LEGGE 16 LUGLIO 1914, N. 665, RIGUARDANTE PROVVEDIMENTI A FAVORE DELLA SARDEGNA. (*Law of 16 July 1914 as to provisions for Sardinia*). *Gazzetta Ufficiale del Regno d'Italia*, Rome, No. 169, 17 July 1914.
- TERZA RELAZIONE SOMMARIA SULL'APPLICAZIONE DELLA PREDETTA LEGGE 16 LUGLIO 1914, N. 665. (*Third Summary Report as to the Application of the Aforesaid Law of 16 July 1914*, No. 655, presented by the Minister of Agriculture (Raineri) on 22 October 1917. Chamber of Deputies, Documents, No. XXII-ter, Rome, Printing-press of the Chamber, 1917.
- VINELLI (Marcello): L'incremento del credito agrario in Sardegna (*The Increase of Agricultural credit in Sardinia*) *Rivista di Scienza Bancaria*, Rome, parts 3-4 and 5-6, March-April and May-June 1917.

To the organic law which regulates agricultural credit in Sardinia (combined text, 10 November 1907, No. 844) there have recently been made certain modifications which had for some time formed the object of votes and proposals as well as of one bill (1). The new measures, contained in the lieutenancy decree-law, No. 1592, of 23 August 1917, widen the field of action of the *Casse Ademprivili*, especially where advances for improving land and altering crops are concerned, and also provide for the new regulation of the *Monti Frumentari* in the island, organizing their

(1) See our issue (*Monthly Bulletin of Economic and Social Intelligence*) for May 1911.

efficient and continuous supervision by means of the *Casse Ademprivili*, which are given for this purpose the needful staff and funds. Other provisions for agricultural credit in Sardinia were contained in the law of 16 July 1914, No. 665. The combined new measures have substantially modified in several respects the system of agricultural credit in Sardinia, which therefore we think it well to describe in its present form, at the same time indicating the development in recent years of operations of agricultural credit in this district (1).

§ 1. THE "CASSE ADEMPRIVILI".

The following are the institutions which now afford agricultural credit in Sardinia: *a*) the savings bank of the Bank of Naples, *b*) the *Casse Ademprivili* of Cagliari and Sassari, *c*) the *Monti Frumentari* and *Monti Nummari*, *d*) the agricultural and rural funds. We will deal briefly with each of them, omitting only the savings-bank of the Bank of Naples because the agricultural credit it affords in southern Continental Italy and Sardinia occupied us several times and recently (2) while we were describing the activity to which the special institutions of agricultural credit in the kingdom have attained. To begin with the *Casse Ademprivili* of Cagliari and Sassari: these are, as is known, the largest institutions of their kind which are active in the island. They are regulated by the law (combined text) of 10 November 1907, No. 844, modified by the law of 16 July 1914, No. 665, and the lieutenantancy decree-law of 23 August 1917, No. 1592. They are in form autonomous moral entities. Their objects are the following: *a*) to allot and distribute property having an *ademprivile* origin (3); *b*) to make advances in money and kind to the *Monti Frumentari* and *Monti Nummari* and agricultural funds and consortia by the methods and for the ends which will presently be indicated; *c*) to make advances to leaseholders, recognized agricultural co-operative societies and owners and managers of land for the construction of settlers' houses, scientific stables and farm roads, for executing the works necessary for providing lands with drinking water (4),

(1) This bill (No. 676) contains modifications of the law (combined text 10 November 1907, No. 844) providing for Sardinia and was presented to the Chamber of Deputies at the session of 3 December 1910 by the then Minister of Agriculture (Raineri). See in this connection the article in our issue for May 1911, already cited.

(2) See our issue for September 1917, pp. 39 et seq.

(3) That is to say properties of feudal origin, subject to the rights of *ademprivio*, that is the right to seed and the rights of pasturage, cutting wood, making charcoal, cutting down plants, etc.

(4) The decree-law of 23 August 1917, No. 1592, treated of the concession of such advances, providing that they might be granted on the presentation of a simple personal guarantee, and that in any case the relative mortgage guarantee was given if legal possession were proved of the land on which the improvements were to be carried out. Such proof could be established by an extract from the cadaster or in accordance with the provisions of the civil code, or failing these by the method established by the law of 19 June 1883, No. 5447, which refers to those who suffered damage by the earthquake of Liguria. The practice is analogous to that followed in granting the privileged loans — of which we shall speak presently — contemplated by the special law of 16 July 1914, No. 665.

for making plantations, reafforesting, acquiring live stock, implements of labour, primary material and stock in general, and for draining and irrigating lands, constructing wells and drinking-places, systematizing and breaking up lands, and making enclosing walls, hedges, etc.

It is seen that such business includes the two branches of agricultural credit, credit for current farming operations and credit for improvements. The former aims at providing the agriculturist with circulating capital and implements of labour, the latter at supplying him with capital to be permanently sunk in the soil — namely the capital used for the systematization of the soil's surface, for works of drainage and irrigation and the control of the water supply, for the enclosure of lands, for rural buildings and for plantations of timber.

By the law of 16 July 1914, No. 665, the *Casse Ademprivili* cannot in transactions of agricultural credit exact interest at a higher rate than $3\frac{1}{2}$ per cent., to be reduced to $2\frac{1}{2}$ per cent. in the case of loans for building settlers' houses and modern stables. Moreover by the same law proprietors, and leaseholders who undertake works of improvement or modern agricultural systematization, the adaptation of their lands for irrigation, experiments in dry farming, or the building and repair of stables for live stock may receive in privileged loans during 1918 a sum not exceeding altogether 2,000,000 liras, paying interest at the same rate of $2\frac{1}{2}$ per cent.

Finally to ensure a greater development to operations in agricultural credit this law also provides that the two agencies we have mentioned have a branch in the capital of every district (*circondario*).

The capital of the two *Casse Ademprivili* consists, as is known, of the following: 1) a sum of 3,000,000 liras to be deducted from the balances of the years 1906-7, 1907-8 and 1908-9, of which sum 1,800,000 liras are assigned to Cagliari and 1,200,000 liras to Sassari; 2) all the properties of *ademprivile* origin, free of services, condominium and other burdens — such properties amounting for the two *Casse* to the respective values of 1,622,421.76 liras and 396,459.96 liras; 3) a sum equal to half the Treasury tax on lands entered on the rolls for 1905, which sum amounted in 1913 to 902,631.77 liras for Cagliari and 438,048.71 liras for Sassari (1).

Each *Cassa Ademprivile* is administered by a council composed of a president and eight councillors, four being members by right and four elected by the provincial council. The president and the elected members hold office for four years and are eligible for re-election. The elected members are renewed every two years.

§ 2. THE "MONTI FRUMENTARI" AND "MONTI NUMMARI".

The *Monti Frumentari* and *Monti Nummari*, which are also called *Monti di Soccorso*, represent an ancient and characteristic institution of the

(1) The decree-law, No. 1373, of 15 September 1915, specially allotted out of the balance of the expenditure of the Ministry of Agriculture, Industry and Commerce for 1915-1916 the sum of 1,000,000 liras as capital to the *Casse Ademprivili* of Sardinia "for agricultural credit and improvements", to be divided at the rate of 600,000 liras to the *Cassa* of Cagliari and 400,000 liras to that of Sassari.

island. They constitute the first basis of credit in Sardinia. They arose as communal institutions (law of 15 May 1851) with the object of supplying seeds to those needing them at the most critical moments, at a low rate of interest, to be paid in kind at the time of harvest. The institutions were established and developed by means of the *roadie*, a *roadia* being a system of lending labour and of working in association which functions as follows. Each village which intends to institute a *Monte Frumentario* chooses a tract of communal land, or if the commune possesses no land of its own the landlord provides a tract; this land is worked by all the local agriculturists and sown with wheat; the harvest provides the *Monte* with an initial fund. The seeds necessary to the first year are obtained by spontaneous private contributions and are deducted from the first harvest obtained. In a short time the quantity of seed needed by the population is obtained, a quantity which increases annually with the increased cultivation of grain, always by those interested.

The law of 2 August 1897, No. 382, provides that the *Monti Frumentari* and *Monti Nummari* be withdrawn from dependence on the communes and regarded as autonomous institutions, subject to the rules of the law of 17 July 1890, No. 6972, on public institutions of beneficence.

Finally by the law of 14 July 1907, No. 562, the provisions of which were fused with those of the preceding laws of 2 August 1897, No. 392, and 28 July 1902, No. 342, in the combined text of 10 November 1907, No. 944, these institutions were entirely withdrawn from the rules of the said law of 17 July 1890, transformed into institutions of agricultural credit, and subjected only to the provisions of the new law.

On the basis thereof and according to the rules of the recent lieutenantcy decree-law of 23 August 1917, No. 1592, the organization of the *Monti Frumentari* is established as follows:

They are authorized to afford, in addition to the loans of grain originally supplied, loans in money, in the form of advances on pledged commodities, for the purchase of manures, seeds, fertilizers, curative substances, insecticides, implements of labour and stock, with the option of supplying such articles directly. They may lend rural implements for a determined period and may acquire land to resell it in small lots when such proceeding seems advisable.

Neither loans in kind nor loans in money may surpass 1,000 liras in value. The *Monti Frumentari* may receive interest on them at a rate $2\frac{1}{2}$ per cent. in addition to the rate charged by the *Casse Ademprivili*. The maximum advance which the latter may make to a *Monte* is 20,000 liras.

The institution of the *roadia* is recalled by the fact that a commune is authorized to concede gratis, for a period of no more than ten years, an extent of land sufficient to produce the quantity of grain needed for the endowment of a *Monte* out of the communal lands. In case of such grant the administrative provincial *Giunta* may, on the advice of the local communal council, oblige the inhabitants of the commune in question to cultivate such land without payment under the supervision of the director of the ambulant chair of agriculture.

The capital of a *Monte* is constituted of : 1) its capital in kind and money; 2) the advance of a sum not exceeding 20,000 liras granted, as explained, by the *Cassa Ademprivile* ; 3) its store-house for the deposit of provisions and implements ; 4) lands ceded to it by the commune, by bodies and by individuals, etc.

Monti Frumentari which possess a capital of less than 2,000 liras or for other reasons cannot usefully fulfil their functions shall, on the advice of the *Cassa Ademprivile* of the province, be compelled to unite with the *Monti* of conterminous communes or be concentrated in the *Cassa Ademprivile*. After such concentration the *Cassa* should by preference employ the capital of the concentrated *Monti* for making loans to the inhabitants of the communes in which these *Monti* were situated, and it may, with the authorization of the Minister of Agriculture, institute branches and representation where there is manifest need of these.

The *Monti*, are administered by commissions composed of five members, of whom one is nominated by the prefect of the province, two by the communal council, and two by the twenty or forty — according to whether or not the commune's population surpasses 3,000 — largest contributors to the land tax.

For many years the *Monti Frumentari* indubitably exercised a beneficent influence on the cultivation of grain in the island. In their flourishing period there was almost one for each commune, but they have come to be reduced in number and they now dispose of scant resources. At the end of 1913 (1) there were 193 of them in the province of Cagliari and 83 in that of Sassari. To give an idea of their resources we reproduce the following table, which refers to the *Monti Frumentari* of the province of Cagliari where institutions of this kind are more important than in Sassari.

The supervision of the *Monti Frumentari* is entrusted in every province to the manager of the *Cassa Ademprivile* who may, when necessary, arrange for special inspections of them.

§ 3. THE AGRICULTURAL FUNDS AND AGRICULTURAL CONSORTIA.

The law, as has been said, authorizes the *Casse Ademprivili* to make loans not only to the *Monti Frumentari* but also to the agricultural funds and consortia. As regards the constitution of the agricultural funds, the law states that they may be formed by means of a transformation of institutions of piety affording credit, or on the initiative of the *Monti Frumentari* and with the funds in cash found to be in excess of the needs of the *Monti*, the communes, the institutions of piety, other bodies or individuals. However in Sardinia the provision which contemplates the derivation of agricultural funds from transformed institutions of piety affording credit is, owing

(1) See *Elenco della società cooperative e mutue agrarie esistenti in Italia il 31 dicembre 1913*. Appendice : *Elenco degli usi civici e dei domini collettivi*. Confederazione generale delle cooperative e mutue agrarie italiane, Rome, Tip. Argenteria, Porto S. Stefano, 1914.

TABLE I. — *Financial Position of the Monti Frumentari of the province of Cagliari.*

Circosdars	Number of the Monti	Ascertained assets in lires							Credit in arrears and of doubtful recovery lires	General total (col. 7 + 8) lires	
		Grain stored and pledged			Cash in hand and lent lires	Storehouse	Barley, beans, manures etc.	Total (col. 3 + 4 + 5 + 6)			
		Quantity (t) 2	Value								
			Hectolitres	centi- litres							lires
					3						
					4	5	6	7	8	9	
Cagliari . .	70	54,862	85	4	1,097,257.08	377,834.77	475,050.00	36,510.16	1,986,653.01	1,288,039.80	3,274,691.81
Iglesias	22	11,042	15	02	220,843.00	195,321.68	118,000.00	24,875.06	550,019.76	88,632.74	647,672.50
Iannuci	30	12,784	05	26	255,681.05	52,641.57	65,750.00	5,133.71	379,206.33	120,950.34	500,155.67
Oriстано . .	71	20,439	00	52	108,780.10	92,163.19	68,050.00	1,498.85	570,492.14	256,906.44	827,398.58
General total . .	193	99,128	06	22	1,082,561.23	717,961.21	726,850.00	68,017.80	2,493,390.24	1,754,538.32	5,249,928.56

(1) 1 litre = 0.0275 bushels.

to the absence of the latter, destined to remain a dead letter. There are no agricultural funds having the form of moral entities in these regions. On the other hand numerous agricultural or rural funds have arisen in the form of co-operative societies, collective in name, having collective and unlimited liability. On 21 December 1916 (1) 141 of them existed in the province of Cagliari and 51 in that of Sassari. They receive credit from the *Casse Ademprivili* of their respective provinces and the savings-bank of the Bank of Naples, and grant loans in money for the following objects: cultivation, the harvest, seeds and manures, fertilizers, and the acquisition of live and other stock, rural machinery and implements, apparatus for handling and preserving agricultural produce and everything else which may be necessary to the pursuit of agriculture.

The agricultural consortia, constituted as co-operative societies and having limited liability, are less important in the island. On 31 December 1916, according to the publication cited in note (1), four of them had been formed in the province of Cagliari and ten in that of Sassari. They may determine to exercise one or more of the following functions: 1) the acquisition, on their own account or that of others, for distribution to members, of seeds, manures, fertilizers, produce, live stock, implements, etc; 2) the sale, on their own account or that of others, of the agricultural produce of local agriculturists, opening for such purposes their own stores for the deposit and sale of goods; 3) the making of advances on the deposit of determined agricultural products which are easily preserved, and the transport of such products to the common stores, etc.

The small number of the agricultural consortia in this island, where rural funds, that is to say bodies having collective and unlimited liability, especially flourish, shows how " what may be called the co-operative conscience has taken healthy root in the island's soil — the conviction namely that only the principle of solidarity can be the basis of an agricultural credit which fulfils its objects ".

§ 4. THE DEVELOPMENT OF TRANSACTIONS IN AGRICULTURAL CREDIT FROM 1913 TO 1916.

By means of the advance of 2,200,000 liras contemplated by the law of 16 July 1914, already cited, which was made by the Deposit and Loans Fund to the *Casse Ademprivili* of Cagliari and Sassari, and by means of the authorization which these *Casse* received, by the ministerial decree of 11 October 1914, to exceed the regular maximum grants to the *Monti Frumentari*, more ample agricultural credit was accorded both by the *Casse Ademprivili* to the agriculturists directly, and indirectly between the *Casse Adem-*

(1) See *Elenco delle società cooperative e mutue agrarie esistenti in Italia al 31 dicembre 1916*, Commissione Generale delle Cooperative e Mutue agrarie italiane. Rome, Tip. Panetto e Pretelli, 1917.

privili and the agricultural funds and between the *Monti Frumentari* and the agriculturists. This appears in the two following tables which compare the number and importance of the transactions in agricultural credit completed by the *Cassa Ademprivili* from 1913 to 1916.

TABLE II. — *Cassa Ademprivile of Cagliari.*

Kind of transaction	1913		1914		1915		1916	
	Transactions		Transactions		Transactions		Transactions	
	Num- ber	Amount involved	Num- ber	Amount involved	Num- ber	Amount involved	Num- ber	Amount involved
		Liras		Liras		Liras		Liras
1 Direct Agricultural credit for farming . . .	29	27,756.10	71	80,243.00	109	126,803.65	187	234,967.15
2 Agricultural credit afforded. Rediscount . . .	7,027	1,865,933.24	11,774	2,468,852.20	13,706	2,814,429.15	12,823	2,866,374.58
3 Advances to the <i>Monti Frumentari</i>	5	23,550.00	23	175,118.40	70	541,833.00	33	55,806.71
4 Loans for improving land	17	149,775.00	10	47,000.00	6	69,500.00	1	3,000.00
Total . . .	7,078	2,067,014.34	11,878	2,771,213.60	13,891	3,552,565.80	13,044	3,160,148.44

This fund made altogether loans amounting to 17,072,998.88 liras, distributed as follows :

	Loans made	Loans repaid	Loans in being on 31 Oct. 1917
	Liras	Liras	Liras
Loans to agriculturists for farming	901,839.95	415,315.72	486,524.23
Advances to <i>Monti Frumentari</i> and <i>Num-mari</i>	1,576,199.51	871,296.76	704,902.75
Advances to agricultural and rural funds, agricultural societies and various bodies	14,198,684.42	11,289,826.80	2,908,857.62
Advances to agriculturists for settlers' houses, modern stables and other improvements. . . .	396,275.00	91,242.42	305,032.58
Total . . .	17,072,998.88	12,667,681.70	4,405,317.18

TABLE III. — *Cassa Ademprivile di Sassari.*

Kind of transaction	1913		1914		1915		1916	
	Transactions		Transactions		Transactions		Transactions	
	Num- ber	Amount involved	Num- ber	Amount involved	Num- ber	Amount involved	Num- ber	Amount involved
		Liras		Liras		Liras		Liras
Direct agricultural credit for farming	1,205	739,625.50	1,862	940,175.89	2,536	1,124,330.05	2,882	1,489,744.94
Agricultural credit. Rediscount . . .	1,358	430,735.00	1,992	464,478.35	2,570	605,782.15	2,668	712,339.70
Advances to the <i>Monti frumentari</i> . . .	1	2,000.00	1	3,000.00	25	167,700.00	3	14.00
Advances for improving land	54	120,206.00	18	54,350.00	126	195,795.00	134	224,924.73
Advances for communes for acquiring grain.	—	—	—	—	—	—	1	7,000.00
Total . . .	2,618	1,292,566.50	3,873	1,462,004.24	5,257	2,183,007.20	5,688	2,448,009.39

Further benefit has been derived by Sardinian agriculture from the concession of the preference loans, intended for the agricultural improvement and systematization of lands, to which we have already alluded in speaking of the law of 16 July 1914. Such loans, granted at the low rate of interest of 2 ½ per cent., are amortizable within twenty-five years beginning five years after they are granted, and thus for the first five years borrowers pay only interest and for the succeeding twenty-five years the amortization quota in addition to interest. The method of applying for and granting these loans has been reduced to the form simplest and least burdensome for applicants, who pay no other charges than those incident to the preparation of the documents proving their possession of their lands, and of the technical plans for the intended improvements and systematization.

Sardinian farmers have not taken long to realize the advantages they may derive, with the help of such loans, from scientifically arranging their lands. In spite of present circumstances — the lack of labour, the high cost of labour and material — which certainly do not favour a large development of agricultural enterprise, 87 of these loans have been granted for a total sum of 1,201,331 liras. They were distributed as follows :

less than L.	5,000	loans no. 32	amounting to	L.	92,750
between " "	5,000 and L.	10,000	" 19	" "	119,155
" "	10,000 " "	20,000	" 18	" "	255,551
" "	20,000 " "	50,000	" 15	" "	461,814
" "	50,000 " "	100,000	" 2	" "	101,900
more than " "	100,000	" 1	" "	" "	167,160
Total loans		87	L.		1,201,331

These figures show that most of the loans thus granted are of small sums, a proof of the benefit derived by small owners from this effective form of State help.

Part IV: Agricultural Economy in General

ARGENTINE REPUBLIC.

THE VITICULTURAL INDUSTRY OF MENDOZA AND THE ARGENTINE AGRICULTURAL CRISIS.

SOURCES:

BELTRAME (Emilio): *Mendoza y su crisis económica (Mendoza and her Economic Crisis)* in *Revista de Ciencias Económicas*, Nos. 41 to 45, Buenos Ayres, November and December 1916, January, February and March 1917.

LA NACIÓN, Buenos Ayres, 1916-17.

The wonderful development of the countries of South America in their first century of independence had, in its every manifestation, an increasing rapidity so intense and unexpected, that it would have been difficult to cause the various forms of activity to converge in any well determined direction. Since all the elements which make up the surprising wealth of these countries do not rest on solid economic bases, they have often enough been artificially increased or deformed by speculation. It should not therefore cause surprise that frequently, in studying such new countries, one finds that their normal economic progress is unexpectedly arrested or accelerated, and that marked changes, if not real crises, are in consequence produced.

The Argentine Republic is in the van of progress in South America. Some years ago, that is at the moment she attained to her maximum economic development, she passed through the gravest crisis which she has ever had to endure — the gravest because the most general. It is easy to understand that this crisis reacted strongly on the viticultural industry, which is localized in the province of Mendoza and which, like all the other national industries, had been increasingly disturbed for some years. No excessive dismay should however be caused by Argentine crises. A local economist, Señor Emilio J. Bertrame, expresses himself as follows on the subject in a recent book which is the basis of our study. "Our crises are necessary, for the impoverishment of the national organism which they produce is nothing else than the elimination therefrom of injurious elements which endanger the very life of the country". This is however on condition that they are not excessively prolonged. Hence there is an urgent need for the State to take all possible steps not only to resolve a crisis happily but also to prevent its repetition.

In the following pages we will examine the conditions of the viticultural industry in the province of Mendoza, as offering one manifestation of the Argentine crisis, and will indicate the measures suggested for the solution of this local crisis.

§ I. AGRICULTURAL CONDITIONS IN MENDOZA

The province of Mendoza is one of the richest in the Argentine Republic and can rival the production of Buenos Ayres, Santa Fé, Cordoba, Entre Rios and Tucuman.

Topographically it is a vast plain, extending from North to East and slightly inclined to the South-East, following the natural slope of Argentine territory. Further south, towards San Luis, it is lost in the immense and monotonous pampas. To the West rises the majestic and white-tipped chain of the Andes whence the most important watercourses flow. The communication of Mendoza with the capital — a great consumers' market — by means of the railway which unites the Pacific and the Atlantic, has very largely contributed to its economic progress. If man had not modified the soil of this province, which is naturally dry owing to its composition and the arid climate, bringing to it the necessary quantity of water from distant rivers by means of a vast network of canals, it would have remained unproductive and would not be in enjoyment of its present conditions of fertility. These conditions are used almost exclusively for the cultivation of vines. As one goes through the province of Mendoza he perceives only symmetrical and interminable vineyards rarely interrupted except by alfalfa plantations, the second most extensively grown crop in Mendoza, and by some maize and cornfields.

Table I gives some data as to the distribution of the area of the province, Table II the area taken up by each of the several crops.

TABLE I.

Total	area of Mendoza	16,956,145	hectares
Cultivated	"	300,000	"
Cultivable	"	500,000	"
Irrigated	"	300,000	"
Irrigable	"	500,000	"
Non-irrigated	"	16,156,000	"

TABLE II.

Year	Vines	Alfalfa	Maize	Wheat	Oats	Rice	Various products
	hectares	hectares	hectares	hectares	hectares	hectares	hectares
1888	6,625	69,496	3,391	6,481	513		1,300
1908	31,792	138,005	10,185	7,615	1,959		4,547
1915	72,000	166,000	23,000	18,000	—	16	

The predominant cultivation of vines is due to various causes, first to the quality of the soil and to the climate which lend themselves excellently to this form of agriculture, then to the fact that it does not need much trouble or expense, and finally to the circumstance that it gives the largest return, as appears from the following figures which refer to 1914 :

Crop	Approximate price per quintal in pesos (1)	Gross return per hectare in pesos
Vines	4	550
Corn	7	245
Maize	5	175
Alfalfa	3	300

The cultivation of alfalfa which furnishes, as we have said, the second most important crop in Mendoza, has, unlike vines, little industrial value and does not suffice to save the province from a condition of crisis, because the larger part of the alfalfa harvest is used to feed draught animals and only a small part sold and converted. The maize and the corn are also of small industrial value to the district.

The province of Mendoza might have other sources of riches, such as fruit growing, stock farming and the exploitation of mineral wealth. But the fruit growing industry has declined owing to the lack of a market caused by the general crisis and by difficulties of transport ; stock farming has been reduced to the limits within which the small demands of Chilean markets can be satisfied ; and the mining industry, which should be most important, has been unable to prosper owing to a lack of capital and labour.

The following table gives data for four decades as to the area under vines in the province, and thus shows the development of this form of agriculture.

Year	Area in Hectares
1887	5,665
1897	19,593
1907	31,286
1917	72,000

The extraordinary rate of increase shown by these figures is chiefly due to the fact that agriculturists have been attracted by the magnificent profits to be drawn from the first from the vinegrowing industry. Such profits amounted in 1912 to 50 per cent. of the capital invested. There was a parallel and large increase in the demand for lands adapted to vinegrowing, and in consequence a marked increase in the purchase-price of land, to which moreover speculation was no little contributory.

In order to enlarge vineyards or form new vineyards landowners did not hesitate to have large recourse to land credit, if not to abuse it.

We give certain figures which may make clearer the course of the viticultural crisis in Mendoza:

Year	Area on which vines were grown hectares	Sales of land million pesos	Mortgages million pesos	Price of grapes per quintal of 46 kg. pesos	
				minimum	maximum
1906.	—	22.0	3.1	3.60	3.80
1907.	31,266	23.4	6.4	4.80	5.00
1908.	38,151	20.5	8.8	5.00	5.50
1909.	46,466	18.5	13.9	3.50	4.00
1910.	47,660	39.6	16.2	3.50	4.00
1911.	48,363	71.6	17.2	3.00	3.50
1912.	50,448	56.4	30.28	3.00	3.50
1913.	52,602	46.0	39.17	3.00	3.50
1914.	60,600	41.4	41.4	2.50	3.00

As appears from this table viticulture largely increased in the last decade owing to the very remunerative price of its products: hence the great demand for land adapted to vinegrowing. We should note however that in the province of Mendoza, as throughout the Argentine, speculation in land has been and still is rife, and often land is brought into cultivation solely or partly to increase its selling value or that of neighbouring land. It is thus comprehensible that viticulturists owning one or more estates seek to raise, even fictitiously, the price of grapes which these produce and thus to increase the value of their land.

Thus the land has largely an artificial value which should react harmfully on general economy. This did not indeed fail to happen: available land came to be in excess of the demand for it and therefore the price of grapes fell. Landowners, seeing the country's general prosperity, deluded themselves into thinking that this fall in price was momentary; but while the demand remained stationary, the price of grapes not only did not rise but actually fell more and more noticeably every year. Therefore landowners found themselves possessing land of which the value had considerably lessened since they had bought it. In order to keep up the price of their produce and to meet their engagements they yet further abused the opportunities for mortgage credit, to which, as we have seen, they had already had such great recourse for the development of the viticultural industry and the extension of their vineyards. Thus, as the preceding table shows, they had reached a point when their lands were mortgaged far beyond their selling value.

It was at this moment that the crisis reached its culminating point, chiefly because there was an over-production of grapes, the basis of the first industry of Mendoza. Side by side with this over-production we find other causes which contributed to bring about a serious and dangerous state of

affairs in the viticultural industry of the province. These causes must be sought in the several economic stages of this industry — vinegrowing, the vintage, the distribution and the consumption of wine.

As regards vinegrowing we should recal that in 1915 there was a general diminution in the yield of vines caused by the excessively hot and dry summer. Then the *Zonda* winds raged persistently; and 30 per cent. of the anticipated yield was lost.

As to the vintage it should be noted that bad fermentation has more than once harmed the wine of a district. It is generally imputed to a lack of skill in many of those concerned, but in recent years it has also been due to a forced parsimony in the use of the chemical ingredients necessary to producing normal wine, these chemicals having risen in price by from 50 to 100 per cent. as a consequence of the war.

As regards distribution Mendoza has no easy means of transporting her products. Except for one interprovincial railway her wealth is marketed by way of the cartroads of the province, which are in good condition but on which there is only an exiguous and costly service of waggons. This deficiency of means of transport is obviously a grave obstacle to the development of industry.

It causes the price of Mendoza wine at its destination to be 1.50 pesos the litre, in a market where wines of superior quality cost no more or less.

As regards consumption, Mendoza and San Juan have hitherto supplied wine to almost all the provinces of the Confederation. Buenos Ayres alone absorbs more than half of what Mendoza produces. But latterly Mendozan wine has had to be sold at a low price in order that it may compete with other wines, and therefore has lost the prestige it once had.

§ 2. INFLUENCE OF THE ARGENTINE GENERAL CRISIS.

We have shown how and why the equilibrium of economic conditions, in that Argentine province which is above all viticultural, has been increasingly disturbed. The further deplorable reaction of the general crisis throughout the country, determined by the European war, on the local crisis in Mendoza, is not difficult to understand.

This is not the place in which to trace the history of the general crisis in the Argentine. We will however indicate its principal manifestations in order better to explain its reaction on the economic situation in Mendoza.

It would certainly be a mistake to think that the European war was the first cause of the Argentine crisis, for at the outbreak of war the country had already been for some time in a difficult position. Such a period of depression as those through which the great South American republic has, after longer or shorter intervals of prosperity, passed too often since it acquired its independence, had recurred. The fact was due to various and multiple causes, both domestic and foreign. Among the chief of them were the excessive speculation in land, the abuse of the system of mortgages, the lack of thrift and of habits of saving among agriculturists, a luxurious way

of life, a defective banking system, the lack of essentially agricultural institutions of credit, and the absence of industries dependent on agriculture and stock farming.

Side by side with these domestic causes for the present Argentine crisis are aggravating foreign causes, dependent on the organization supporting the whole economy of the country, which always seeks abroad a market for its products (1) and the capital which feeds its industries. The regular economic progress of the country was for all these causes much hindered. There remained the products of importation, which could be depended upon to bring about a healthy and sound reconstitution of the national economy. But the European war supervened.

This obviously caused an increased amount of the European capital invested in the country to be withdrawn, and at the same time it brought about a largely augmented foreign demand for Argentine products, so that if some industries were paralyzed by lack of capital others were largely strengthened. Meanwhile a difficulty of no slight order arose in the matter of receiving payment for Argentine products from importing countries, that namely of remitting gold in safety. This difficulty increased as maritime communications became more and more defective, so that the tonnage necessary to transporting products was no longer available. The consequence was first a rarefaction of the circulating medium and a temporary rise in the price of merchandize, then a large issue of paper money in excess of the limits of the legal metal guarantee, and a depreciation of products due to the lack of tonnage for exporting them.

Thus the crisis and its immediate effects were general and therefore necessarily reacted on all industries, and such reaction was inevitably most injurious to industries not depending on exportation, which could not even profit by the temporary rise in the price of products needed by foreign countries caused by the European war. Among these industries viticulture was one of those most badly hit, and hence the general crisis had a particularly unfortunate effect on the local crisis in the province of Mendoza.

§ 3. SUGGESTED REMEDIES

We will now notice the measures which might, according to the most generally received local opinion, remedy this state of affairs in Mendoza.

As regards the excessive production, it is thought that a law compelling the cultivation of the Creole grape, which has little commercial utility, might be very effective. French vines could be grafted on the Creole vines and would bear fruit within four years, an interval which would allow the general economic situation to improve, and the malbek, verdot and other vines would bear meanwhile. Thus in four years 3,600,000 quintals of grapes and 500,000 of the wine called Creole wine would be withdrawn from distribution.

We have seen however that excessive production is not the only cause

(1) Only one hundredth part of the total production of the Argentine is consumed within the country.

which has aggravated the viticultural crisis in Mendoza. Among contributory causes the lack of small properties in Mendoza as elsewhere in the Argentine is indubitably the first. If the agriculturist were the owner of at least three hectares he need not grow only vines on this holding but could maintain himself and his family on its produce. Thus the excessive and almost exclusive cultivation of vines, which takes place on the large estates, and the consequent excessive production of wine would be avoided. Yet other causes of the crisis are, as has already been noticed, the lack of labour in the industries connected with viticulture, which is bound up with most important industries, such as distilling, the exporting of raisins and fresh fruit, the manufacture of tartaric acid, and others of less economic value, from all of which agriculture could derive immense benefits in that they would make possible the production of liqueurs, medicinal alcohol and brandy as well as wine.

To remedy all other technical, financial and commercial deficiencies a series of legislative measures have been proposed. The following are the chief of them :

- 1) The absolute prohibition of new plantations of vines from 1917 to 1921.
- 2) A variety of crops to include all those to which the soil of Mendoza is adapted, so that the province may enjoy the economic advantages consequent on the richness of this variety.
- 3) The institution of a practical school of agriculture and trade in which special courses in the work of vintage will be held.
- 4) The institution of district stores which will aim at making the conversion of grapes easier to members of co-operative societies.
- 5) Laws for the severe punishment of usury.
- 6) Provisions against fraud and against the adulteration of wine and other products of vintage.
- 7) The encouragement of new industries by granting fiscal exemptions for long periods of years.
- 8) Commercial treaties with neighbouring countries, which will facilitate the export of Argentine vines by granting reciprocal freedom from customs duties.
- 9) The continuation of the San Juan and Serrezuela railway to Mendoza and the development of means of transport generally.

* * *

Such is briefly the history of the viticultural crisis in Mendoza, which might indubitably be remedied if, as has been explained, a better balance were maintained between production and consumption.

If the crisis has injured the province economically it has had an educational value. The sources of riches in Mendoza, even from the point of view of viticulture only, are so copious that after the war Mendozan wines will certainly compete in the various national markets with the best wines of Europe.

UNITED STATES.

FOOD POLICY AND THE ORGANIZATION OF AGRICULTURAL PRODUCTION.

OFFICIAL SOURCES:

AN ACT TO PROVIDE FURTHER FOR THE NATIONAL SECURITY AND DEFENCE BY STIMULATING AGRICULTURE AND FACILITATING THE DISTRIBUTION OF AGRICULTURAL PRODUCTS. No. 40, 65th Congress.

AN ACT TO PROVIDE FURTHER FOR NATIONAL SECURITY AND DEFENCE BY ENCOURAGING THE PRODUCTION, CONSERVING THE SUPPLY, AND CONTROLLING THE DISTRIBUTION OF FOOD PRODUCTS AND FUEL. No. 11, 65th Congress.

OTHER SOURCES:

BRAND (CHARLES J.), Chief Bureau of Markets, United States Department of Agriculture Production and Marketing Plans for Next Year, in "The Annals of the American Academy of Political and Social Science", Vol. LXXIV, No 163, Philadelphia, November 1917 (1).

GIFFORD PINCHOT, President of the Pennsylvania Rural Progress Association: Agricultural Policy for the United States in War Time. Ibid.

SWEET (LOU D.), President of the Potato Association of America: The War and our Potato Industry. Ibid.

LATHEROP PACK (CHARLES), President of the National Emergency Food Garden Commission: Urban and Suburban Food Production. Ibid.

DAVIES (JOSEPH E.) Member of the Federal Trade Commission: Price Control. Ibid.

VAN HISE (CHARLES R.), President, University of Wisconsin: The Necessity for Government Regulation of prices in War Time. Ibid.

BENSON (D. H.), United States Department of Agriculture: Accomplishments of Boys' and Girls' Clubs in Food Production and Conservation. *

Agricultural production in the United States has come to have a capital importance for European countries owing to the diminution of their own resources in foodstuffs which has been caused by the war.

The situation of America as regards her supplies of food since her entry into the struggle is merely an accentuation of that towards which she has been gradually and inevitably drifting for years. The areas of fertile land which once provided for her growing population have been exhausted. It has become imperative to increase the production of the necessities of life by more efficient and intelligent methods of agriculture, and by utilizing

(1) This volume of *The Annals* gives the proceedings of the Conference on the World's Food held by the American Academy of Political and Social Science at Philadelphia on 14 and 15 September 1917.

those less accessible and less fertile territories which have hitherto been neglected. The following figures, taken from the last census and covering the period from 1900 to 1910, show how production has decreased in proportion to population :

Acreage under cultivation	<i>per capita</i> : Decrease of 10 per cent.					
Production of butter	"	"	"	"	10	"
" " Indian corn	"	"	"	"	21	"
" " oats	"	"	"	"	11	"
" " wheat	"	"	"	"	15	"

The increasing population accompanied by decreasing production makes the task both of the Federal government and of the several States difficult. We will endeavour in the following pages briefly to show what has been done in the United States to develop agricultural production, to increase the available supply of foodstuffs and to regulate the trade in foodstuffs.

§ I. LEGISLATIVE PROVISION FOR AGRICULTURE AND THE TRADE IN FOODSTUFFS.

The powers conferred on the President with regard to foodstuffs and the legislative basis of all the recent measures taken in this sphere depend on two Acts passed on 10 August 1917.

The first is called "An Act to Provide Further for the National Security and Defence by Stimulating Agriculture and Facilitating the Distribution of Agricultural Products". It enacts that the purpose stated in its title shall be attained "by gathering authoritative information concerning the food supply, by increasing production, by preventing waste of the food supply, by regulating the distribution thereof". The Secretary of Agriculture is authorized, with the approval of the President, "to investigate and ascertain the demand for the supply, consumption, costs and prices of, and the basic facts relating to the ownership, production, transportation, manufacture, storage and distribution of foods, food materials, feeds, seeds, fertilizers, agricultural implements and machinery". Any person must, when questioned by the Secretary of Agriculture or anyone acting for him, answer to the best of his knowledge as to any matter of which the Act thus authorizes the investigation and must produce any documents relevant thereto which he possesses.

Whenever the Secretary of Agriculture finds that "there is or may be a special need in any restricted area for seeds suitable for the production of food or feed crops, he is authorized to purchase or contract with persons to grow such seeds, to store them; and to furnish them to farmers for cash, at cost, including the expense of packing and transportation". For this purpose the sum of \$ 2,500,000 is appropriated out of Treasury funds. The following additional sums are appropriated out of moneys in the Treasury: for the prevention, control and eradication of the diseases and pests of live stock, the enlargement of live stock production; and the

conservation and utilization of meat, poultry, dairy and other animal products, \$885,000; for the prevention, control and eradication of insects and plant diseases injurious to agriculture, and the conservation and utilization of plant products \$441,000; for increasing food production and eliminating waste and promoting conservation of food by educational and demonstrational methods, through country, district and urban agents and others, \$4,348,400; for gathering authoritative information as the Act specifies, extending and enlarging the market news service, preventing waste of food in storage or transit and food held for sale, advising as to movements of markets and the distribution of perishable products, and enabling the Secretary of Agriculture to investigate the soundness of fruits, vegetables and other foods when received at important central markets, and give certificates as to his conclusions to consigners, \$2,522,000.

The President may "by and with the advice and consent of the Senate appoint two Additional Secretaries of Agriculture".

Thus the provisions of this law aim first at increasing production directly by furnishing seeds on good terms to farmers in need of them, thus allowing the cultivated area to be extended; and indirectly by combating diseases of plants and animals, encouraging the preservation of meat, vegetables and fruit, reducing waste, and regulating the trade in foodstuffs. Secondly the Act creates two new directing agencies.

The second law is entitled "An Act to Provide for the National Security and Defence by Encouraging the Production, Conserving the Supply and Controlling the Distribution of Food Products and Fuel". It is more complex and has a wider bearing than the other, as is proved by the appropriations it authorizes which amount to \$160,000,000. It is concerned not only with the food of men and animals but also with coal, combustible oils and gas, manures, fertilizers, tools, utensils, apparatus, machinery, and plant for the production of primary necessities, and it has provisions for the prevention and mitigation of scarcity, of monopolization and of speculation, in fact of all personal control which might alter the normal equilibrium of exchanges.

The Act forbids any person wilfully to destroy any necessities, for the purpose of enhancing the price or restricting the supply thereof, or knowingly to waste them or wilfully permit preventible deterioration of them, to hoard or monopolize them, to make unjust charges for handling them or dealing with them, to limit the facilities for transporting, producing, supplying or dealing in them, or to exact excessive prices for them. In order to prevent unfair fluctuations of price the President may fix just rates of charges for storage and of commissions and profits, except in the case of farmers and gardeners and co-operative associations of these, that is of the producers themselves. The President may also restrict the right to import, manufacture, store or distribute necessities, and the right to mine necessities, to persons whom he has licensed to pursue these callings; and thus he is able to exercise an effective control over them.

In order to give protection against a rise in prices and to steady prices,

the President is authorized to buy, store, provide facilities for storing, and sell for cash at reasonable prices, wheat, flour, meal, beans and potatoes.

The capital provision of the Act is the following: "Whenever the President shall find that an emergency exists requiring stimulation of the production of wheat... he is authorized, from time to time, seasonably and as far in advance of seeding time as practicable, to determine and to give public notice of what, underspecified conditions, is a reasonable guaranteed price for wheat in order to assure such producers reasonable profit. The President shall thereupon fix such guaranteed price for each of the official grain standards for wheat as established under the United States grain standards Act, approved 11 August 1916. The President shall from time to time establish... regulations in connection with such guaranteed prices, and in particular governing conditions of delivery and payment, and differences in price for the several standard grades in the principal primary markets of the United States, adopting Number One Northern Spring or its equivalent at the principal interior primary markets as the basis. Thereupon, the government of the United States hereby guarantees every producer of wheat produced within the United States, that, upon compliance by him with the regulations prescribed, he shall receive for any wheat produced in reliance upon this guarantee, within the period not exceeding eighteen months prescribed in the notice (that is up till 1 May 1919) a price not less than the guaranteed price therefor". This price is fixed at \$2 for the harvest of 1918 and the grade already named. On corn which may during this period be imported into the United States at a less price than the guaranteed minimum the President may impose a duty equal to the difference between the two prices. The President is also authorized to buy any wheat for which a guaranteed price shall thus be fixed, and to hold, transport or sell and deliver it to any citizen of the United States or any citizen of a country making war on the enemies of the United States. Such wheat thus bought may similarly be used to furnish supplies to any department or agency of the government of the United States.

For the purposes of this Act the sum of \$10,000,000 is appropriated to the purchase by the State of nitrate of soda, which will be resold to farmers at cost price, including expenses, in order to increase agricultural production in 1917 and 1918.

On the basis of the Act's provisions the federal authorities have in recent months published a series of regulations and instructions which aim at regulating, in the best interests of the whole country, the methods followed in trade, with a view to adapting them to present necessities and imposing the restrictions which present circumstances demand.

The Food Administration has provided for the elimination of excessive commissions to brokers, commission merchants and auctioneers of foods by regulations which have had effect since 1 November 1917.

They forbid any licensee under the Act to "charge directly or indirectly a commission or brokerage on the sale of food commodities in excess of that which ordinarily and customarily prevails under normal condi-

tions" in his district and his branch of trade. Commission men, brokers and auctioneers are forbidden to sell foods to themselves or persons connected with their own business without permission from the person entrusting such food to them for sale, or to take a profit in addition to the commission or brokerage.

Speculation in canned goods is checked by special regulations governing the canners whom the Food Administration placed under license on 1 November. They were forbidden to sell canned peas, Indian corn, tomatoes, salmon and sardines in advance before 1 February, this date being subject to alteration in accordance with the needs of the military forces and the allies. It was further provided that "the licensee shall not sell for future delivery any canned peas, canned corn or canned tomatoes in excess of 75 per cent. of the normal yield of such acreage as the licensee has already under contract or legal contract. The licensee shall not sell for future delivery canned salmon or canned sardines in excess of 75 per cent. of his estimated pack, conservatively figured with regard to his capacity and the supply of fish which can reasonably be expected by him".

The majority of retailers are not licensees and therefore are not controlled by the Food Administration; but they are prevented from charging exorbitant prices by an announcement of the Food Administration that no manufacturer, wholesale dealer or other handler of food will be allowed to sell to any retailer in the United States who makes unreasonable profits or buys large quantities of foods for speculative purposes. Although the smaller retailers of food are exempt from the provisions of the Act which concern licenses they are subject to others of its provisions.

An important provision for the limitation of speculation in produce placed in cold storage is a rule which strictly regulates and limits loans and advances made by storage warehousemen to depositors. As a means however of preserving excess products in seasons of productivity for use in seasons of scarcity, the economic necessity of cold storage is recognized.

The hoarding of food is to be checked by the United States Food Administration in connection with its system of licensing dealers. No licensee may "keep on hand or have in possession or under control, by contract or other arrangement, at any time, any food commodities in a quantity in excess of the reasonable requirements of his business for use or sale by him, during the period of sixty days, and he may not "sell or deliver to any person any food commodities" if he knew, or have reason to believe, "that such a sale or delivery will give to such person a supply in excess of his reasonable requirements for use or sale by him during the period of sixty days next succeeding such sale or delivery". For some commodities the period is thirty days. Exceptions are made of certain commodities very abundantly produced in certain seasons, such as fruit, vegetables, fish, poultry, eggs, dairy produce, cotton seed products and others. These may be held in sufficient quantities to meet the reasonable demand in seasons of scanty or no production. Sales of more than sixty days' supply may be made for the use of the governments of the United States and the

allies and of cities and States. Products intended for sowing may be stored for longer than sixty days if notice be sent to the Food Administrator.

About 100,000 manufacturers, wholesale dealers and other distributors will be affected by the requirements attached to licenses. The aims pursued in licensing dealers are: 1) to limit the prices charged by licensees so that they are only reasonably in excess of expenses, and to prevent speculative profits following on a rising market; 2) to cause food to pass as directly and rapidly as possible from the producer to the consumer; 3) to limit advance contracts and dealings in them as much as is practicable.

§ 2. PLANS FOR PRODUCTION AND MARKETING IN 1917-1918.

When the United States declared war last April sowing plans were already far advanced. Nevertheless active steps were taken immediately to effect as large an increase of production as possible. The Secretary of Agriculture called together at St. Louis on 9 and 10 April a body very representative of the agricultural interests of the nation. A careful report was drafted, recommending the steps to be taken, and these may be summarized as follows:

1. Every community was to be urged to produce its own food and fodder as far as practicable.

2. The production of non-perishable staple commodities was to be increased beyond local needs wherever this could most profitably be done.

3. The staple commodities recommended by the Department of Agriculture to be immediately planted in increased quantities were spring wheat, rye, beans and rice. Sugar beetroot and sugar-cane production was to be increased in the districts lending themselves to these industries.

4. The commercial production of perishable commodities was to be raised above its normal level only in so far as facilities for transportation and marketing were assured. Home gardens were to be encouraged particularly with a view to supplying the needs of the gardening families.

A) *Cereals and Forage Crops.* — During the summer of 1917 more definite recommendations for production in 1918 were prepared, and took into account the existing conditions as to transport and the supply of seeds, fertilizers, farm machinery and labour. The programme drawn up asked for 44,634,000 acres of winter wheat. The authorities of the States most concerned, namely those properly equipped with machinery for producing and harvesting winter wheat, decided that it was possible to increase this acreage, and the plan finally adopted asks that winter wheat be sown over 47,000,000 acres and winter rye over 5,000,000 acres. On the basis of the average yield of the last ten years this acreage should produce about 672,000,000 bushels. It was too early to determine the area which should be sown with spring wheat in 1918. In 1917 the area thus sown was 19,000,000 acres. It was recommended that rye should be sown over 5,131,000 acres, which would represent an increase of 22 per cent. over the

area so sown in 1917. The planting of winter oats in the south was recommended. The acreage under beans has increased by 84 per cent. since last year. The production of hay and forage crops is to be increased. Carefully worked out plans are being followed in areas which have suitable stocks of seeds, to ensure that these are used to increase production. The department will, in co-operation with the Food Administration, pass upon all applications for leave to store grain to serve as seed and thus seeds of the highest qualities will be preserved.

B) *Potatoes*. — The appeal of the Federal Department of Agriculture met with an immediate response in the case of potatoes which were planted over an additional 117,000 acres. Owing however to the high price and inadequate supply of good seed potatoes and the almost prohibitive price of fertilizers the potato crop of 1917 was less satisfactory in respect of quality than in respect of quantity. The opinion has become more or less general that owing to the increased production of potatoes and the lack of storage it would be economical to put large quantities of them through processes of dehydration. Some difficulties now encountered by potato-growers will be overcome by the recent ruling of the Federal Reserve Board which allows potatoes properly sorted and graded and properly stored to be security for warehouse receipts negotiable at member banks at a rate not exceeding 6 per cent., including all commissions. In co-operation with the Federal Department of Agriculture, the Food Administration has established official grades, which have been approved and will serve as a basis for putting the ruling of the Federal Reserve Board into practice.

C) *Live Stock*. — The Department is, in co-operation with the Food Administration, the agricultural colleges and live stock associations and producers, taking many steps to extend the production of cattle, hogs and sheep. The following are the means adopted to increase beef production: the increased production of fodder, the distribution of cattle on ranges over feeding areas, the redistribution of cattle in areas stricken with drought over more fertile areas, a concentrated campaign against the cattle-tick, the efficient management of Federal grazing lands, the greater encouragement of boys' beef clubs, and the appointment of a very large number of additional agricultural agents who will help to extend the cattle industry by educational work.

An increase in the supply of milk and dairy produce must be secured by education in scientific methods of feeding and in the selection of cows of good yield.

There is a world shortage of wool and mutton. All agricultural agencies in the United States are therefore endeavouring to educate farmers to raise sheep and produce wool by safe and conservative methods.

The production of hogs is to be increased by every available means, including a better control of hog cholera and other hog diseases. The utilization of pasture and of forage crops to a maximum extent is recommended, in order to reduce the amount of grain needed for feeding pigs.

Altogether the *per capita* production of live stock in the United States has dropped. This is in spite of a 2 per cent. increase of cattle in 1917 — as

compared with 1916 — one of 3 per cent. if only milch cows are considered. The number of hogs was however less in 1917 than in 1916. In Iowa, the greatest hog-producing State, there were 20 per cent. fewer hogs in 1917 than in 1916, and in Missouri 18 per cent., while in all the United States the number of hogs had diminished by seven millions. The high price of grain and the uncertainties of the market persuaded the farmers in a large part of the country that it was not worth their while to raise more hogs.

Similar conditions were found in the case of the dairy herds. Whereas in New York State about 17 per cent. of the milch cows are normally slaughtered in a year, an additional 14 per cent. were slaughtered between 1 April 1916 and 1 April 1917 owing to the high cost of producing milk.

The situation with respect to sheep is no better. Between 1900 and 1915 the number of sheep per thousand of the population decreased by 48 per cent. Sheepfarming naturally developed first in the Eastern States, then gradually was pushed further westwards as the value of arable land in the more settled parts of the country rose. Thus in Vernon there were 1,681,819 sheep in 1840 and only 47,415 in 1915. From 1870 to 1880 there were nearly 5,000,000 sheep in Ohio, only 4,000,000 in 1890 and only 2,100,000 in 1915. In Texas the number rose from 3,000,000 in 1880 to 4,260,000 in 1890, but it had fallen to 1,600,000 in 1915. In California it fell from 5,727,000 in 1880 to 1,900,000 in 1915. During this period sheep were kept for the production of wool only; but now wool has become a by-product for meat constitutes about two thirds of the total product of sheep.

In view of the unforeseen needs which have arisen through the war a large work of propaganda has been instituted in order to awaken the interest of the agricultural class in sheepfarming. One of the lines of work decided upon has been that of organizing and developing as many boys' and girls' sheep and lambs clubs as possible. It is hoped that the breeds of sheep will be improved. The great north-western grazing territory, comprising the States of Montana, Idaho, Wyoming and Oregon and containing vast areas of free or very cheap grazing lands, has been the great source of wool and mutton production during the present century. These four States in 1916 produced 86,255,000 pounds of wool; or about 30 per cent. of the total wool clip of the United States, namely 288,000,000 pounds. There has hitherto been no point of contact between the farmer in the East who desires to buy a small flock and the great flocks of the Western range which are his only source of supply. The Interstate Live Stock Company has therefore been formed, and provides the capital with which sheep are brought in large quantities from the Western range and distributed over the Eastern farming sections. The capital of the company has been subscribed by public spirited men and it is on a non-profit basis. Speaking generally, the following are the conditions which make for abundant production of live stock: abundance and therefore relative cheapness of animal foods; scarcity of live stock in relation to demand and therefore high prices for the producer; and scarcity of agricultural labour. It

seems that all these conditions will be present during the coming agricultural season.

D. *Marketing Agricultural Products.* — Owing to the extent to which production will be increased in the present season more attention must be given to marketing. Districts which have not hitherto produced in excess of their needs will do so, and the producers, being inexperienced in marketing, will not be able to dispose of their produce without help. They must be protected from speculators.

One of the most pressing needs is that of a proper distribution of supplies over markets : otherwise while some are undersupplied, others will be oversupplied and food will be allowed to decay because it cannot be sold. The Bureau of Markets proposes to meet this need by extending its services of market news on fruit, vegetables, live stock and meat, and instituting similar services in relation to butter, eggs, poultry, grain, seeds and hay.

a) *Fruit and Vegetables.* — Some of the crops covered by the news service last year were tomatoes, cantaloupes, peaches, water melons, onions, asparagus, strawberries, potatoes, grapes and apples. Temporary and permanent branch offices have been established in the most important markets and consuming centres, and daily telegraphic reports are obtained from the common carriers, showing the number of carloads of each product consigned from producing areas and their destinations. These reports are summarized for redistribution to producing areas, markets and the press, the number of available cars and a list of prevailing prices in each market being added to them.

The appropriation of treasury moneys will allow the number of permanent stations to be increased from twelve to twenty-five and the reports to cover all the more important fruits and vegetables and such important staple commodities as dried beans and peas. The service will extend over the whole country, stations being opened on the Pacific Coast and in the South.

b) *Live Stock and Meat.* — A service of market reports on conditions of the meat trade in the Eastern consuming cities was instituted in December 1916. The information is published in daily bulletins in such important markets as Boston, New York, Philadelphia, Chicago, Omaha, Kansas City and Washington. Daily telegraphic reports are received from divisional superintendents of railways, showing the number of cars loaded with each species of live stock during the preceding twenty-four hours and the destinations of these cars. This information is compiled and wired to the principal markets every day. The appropriation allows the eight stations now covered to be increased to twenty, and the organizations in New York and Chicago to be made adequate to the importance of the markets in these places. This work should be particularly valuable in the present emergency, not only in that it should equalize the distribution of live stock and meat, but also in that, by giving the producer confidence and relieving him of fear of speculators, it will increase production.

c) *Dairy Produce, Eggs and Poultry.* — The service of news as to these products will include the issue of reports on production, and market re-

ceipts, conditions and prices as affecting them. Branch offices will be established on the Pacific Coast, in the Middle West, in the South and in the East. As yet, however, this work is in an experimental stage.

d) *Grain, Seeds and Hay*. — A market reporting service is now being established for grain, hay and seed. Biweekly reports are issued giving estimates of stocks on hand, consignments, requirements of markets in the near future and buying and selling prices in the various districts. For this purpose the country has been divided into ten districts, and the first district to be organized includes Virginia, West Virginia, North and South Carolina, Maryland and Delaware.

E) *Enquiry as to Stocks*. — In order to have authoritative information as to the country's food supply, the Department of Agriculture is, through the Markets Bureau, collecting facts as to the existing quantity of foodstuffs, its situation and ownership. Schedules have been posted to 385,000 businesses handling food, and these have sent reports as to the amount of eighteen important articles of food which each holds. The following are the more important groups of these dealers: grain elevators, mills and wholesale dealers; grain, flour and fodder dealers and proprietary fodder dealers; breweries; distilleries; rice mills and storehouses; canners of fruit, vegetables, meat and sea foods; mills, refineries and exclusive dealers in edible oils; sugar and sirop mills and refineries; wholesale and retail bakers; manufacturing and wholesale confectioners, fish freezing plants and dry and salt fish packers; slaughterers and meat packers; lard compound and oleomargarine manufacturers; wholesale poultry, butter, eggs and cheese dealers; poultry packing and fattening plants and live poultry consigners; wholesale fruit and vegetable dealers; wholesale grocers and merchandise brokers with stocks; creameries and milk condenseries; cheese factories. After this information has been collected monthly reports will be issued.

F) *Inspection and Standardization of Products*. — As we have explained in analysing the Act No. 40, passed on 10 August 1917, an inspection service will be conducted which will enable the Secretary of Agriculture to investigate and to certify to consigners the condition in which fruit, vegetables and other produce reach the markets. Producers, dealers and transport companies have been asking for such a service for years. It should protect producers against unjustified rejections of their produce, and against false and misleading reports on the condition in which it is consigned for sale on commission; and therefore it should stimulate the production of perishable produce.

The standardization of agricultural products and of the packages and containers in which they are offered for sale is essential not only to their efficient marketing, but also to dealing with the present crisis, for it will furnish a basis for quotations of price and obviate many delays and misunderstandings.

In a previous article we noticed the efforts made by the Government of the United States in this direction (1). They have been completed by an Act of 1916 fixing standards for shelled Indian corn and wheat.

(1) See our issue for July 1917, page 61.

§ 3. URBAN AND SUBURBAN FOOD PRODUCTION.

In order to utilize all available pieces of land, within and near towns, as has been done in many European countries, the government of the United States has appointed a National Emergency Food Garden Commission.

The statements of the president of this commission show what excellent results it has obtained. Last September 1,150,000 acres of city and town land, most of which had previously been unproductive, were under cultivation. In the whole country there were nearly three million "food gardens"; and the nation's food supply was estimated to have been increased by the value of more than \$350,000,000 by such gardens. In the *North American Review* for September there was the following statement. "Last spring, at garden-planting time, we urged the increase of production, partly through intensified culture, to increase the yield per acre, and partly through the increase of acreage by the cultivation of neglected fields and even small plots in suburban and urban areas. How well this policy was executed is seen in the report of the National Emergency Food Garden Commission that the gardens of the country were this year more than trebled in area. Beyond question, this achievement has much to do with the fact that the increase in price of garden products in the year was only 22 per cent. or less than one fifth the increase in the price of breadstuffs".

As production has increased waste has diminished, and the preservation of fruit and vegetables has had an increasingly important place in domestic economy. It was estimated that 460,000,000 quart glass jars of vegetables and fruit, or three times the usual annual amount, were preserved by housewives in 1917. The drying and dehydrating of fruit and vegetables made a further important addition to the food supply.

The Markets Bureau renders important help in one respect to home gardens. It is part of its programme of activity, laid down last April, to help to establish personal contact between producers and consumers in order to assist in marketing the surplus produce of home gardens and the excess produced by truck-growers and others, and many small quantities of food will thus be sold which could not otherwise be marketed. Agents will be placed in a number of large cities throughout the country to awaken interest among consumers in this system of direct marketing. Agents will also interest producers in furnishing supplies by working through the postmasters in small towns. In view of the shortage of cars and the congestion at railway termini, and the difficulty of handling a quantity less than a carload efficiently, demonstrations will be made to show how motor-trucks might be run on marketing routes.

§ 4. FOOD PRODUCTION BY BOYS' AND GIRLS' CLUBS.

The boys' and girls' clubs, which have several times occupied our attention in this review, constitute a veritable army for they have more than two million members. Their so-called "4-H emblem" refers to their

pledge to consecrate "head, heart, hands and health, through food production and food conservation, to help win the world war and world peace".

In 1916 it cost the Federal States and local authorities 79 cents per member to supervise, direct, instruct and encourage these boys and girls in producing food. As a result each of them produced on an average \$ 20.96 worth of food for the nation, thus giving a net profit of \$ 20.17 on the investment. The 3,000 county agents, 1,000 club leaders, several hundred women agents, thousands of public school teachers, scout leaders and others have worked for a number of years to obtain this result. In 1910 this army for the production and preservation of food consisted only of a few hundred volunteers.

The following facts illustrate the success achieved. In 1917 the State co-operative club leaders conducted 1,534 demonstrations in home canning and preserving. They were attended by 20,860 club members, and 53,565 men and women and 14,152 boys and girls who were not club members. The same club leaders visited 12,898 club plots, this supervision being additional to that conducted locally by 4,367 volunteer club extension leaders. 985 Indian corn clubs were organized in twenty-four States and enrolled 14,400 members. Final and complete reports were made by 3,918 members who cultivated 9,712 acres, on which they produced 523,110 bushels of Indian corn or an average per member of more than 100 bushels an acre. They invested in the land \$142,867, including rent, the cost of their own labour and all other costs, the average investment of each of those making the final and complete report being \$36.46.

Twenty-three States organized garden and canning clubs. The 1,160 garden and canning clubs enrolled 24,254 members of whom 7,903 reported that they had canned 201,305 quarts of produce, on an average 25.4 quarts a head. The total cost of production to those reporting was \$ 28,126 — on an average \$3.56 a head.

The pig clubs produced 728,411 pounds of pork, worth \$85,762, which brought to their members a net profit of \$43,086.

On 30 June 1917 there were 948 paid leaders connected with the boys' and girls' club work and 9,748 voluntary club leaders. Between 1 December 1916 and 1 April 1917 the one or two weeks' short courses at the various State colleges of agriculture were attended by 3,589 club members.

Last year, not only were the number and membership of the boys' and girls' clubs increased, but also the organization for the supervision and direction of their work was improved. About 400,000 children cultivated gardens, canned produce, raised poultry, made war bread and undertook other special tasks, supervised by the various State co-operative leaders, in connection with the war emergency projects. These children are enrolled in the large cities and are not considered to be regular members of the home and farm clubs. The regular members are now organized in the following clubs:

Corn clubs	915
Potato clubs	1,217
Home garden	3,070
Canning clubs	2,152
Garden and canning	776
Mother-daughter	270
Poultry clubs	832
Pig clubs	1,037
Baby beef clubs	158
Bread clubs	643
Sewing clubs	1,250
Handicraft clubs	76
Sugar beet clubs	161
Home cooking clubs	755
Various clubs	448
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• Total	13,690

When war was declared the United States Department of Agriculture, in connection with the agricultural colleges, was employing county agricultural agents, women demonstrator agents and leaders of boys' and girls' clubs in more than half the counties of the Union. In September 1917 they were in nearly all the counties, sometimes two, three or more of them in one county.

More than forty co-operative centres for preserving fruit and vegetables have been instituted since the United States declared war. Certain of them possess plant for the manufacture of potato starch.

§ 5. THE REGULATION OF PRICES AND PROFITS.

Since 1897 there has been a steady upward tendency of prices, the cumulative effect of which was large. However the unsettled commercial conditions following on the outbreak of war had the immediate effect of arresting advancing prices in general and depressing some of them. By July 1915 the upward swing had established itself everywhere. Wholesale prices were from 50 to 400 per cent. higher in June 1917 than in 1914. The increase in the case of the more important commodities was as follows: the price of Indian corn and cornmeal, sugar, wool and worsted had more than doubled; that of butchers' meat had risen by from 25 to 75 per cent.; that of potatoes by more than 225 per cent.; that of wheat and flour by more than 250 per cent. The price of other cereals was more than doubled between 1916 and 1917.

The enormous rise in prices has been due not only to the several factors of cost of production which have varied under the influence of the war, but also, and to a large extent, to the excessive profits of providers. Hence the power given to the President, by the Act which we analysed in the beginning of this article, to regulate and tax prices.

The following are some facts, taken from official sources, as to the colossal

sums received as "excess profits", this term being taken to mean the amount by which wartime profits exceed the profits made before the war.

There are no available figures to show the excess profits realized by those dealing in *cereals*. Mr. Herbert Hoover stated to the State Committee on Agriculture on 19 June 1917 that "in the last five months on the item of flour alone \$250,000,000 has been extracted from the American consumer in excess of the normal profits of manufacturers and distributors". If this statement be correct the total excess profits made on grain in 1916 must have been more than a billion dollars and may have been as much as two billion dollars.

According to figures presented by a Treasury expert to the finance committee of the Senate, the excess profits in 1916 of four big packing companies in Chicago were more than \$28,000,000. It may be concluded that the largest part of this sum was made by dealings in *meat*. In the metal and the petroleum industries the excess profits have been enormous.

These few facts explain why the Act we have cited is so energetically directed against speculation

§ 6. AGRICULTURAL LABOUR.

When the food problem became acute in the early months of 1917 all the problems of farm labour were brought to the attention of the public. An agricultural survey conducted by a few of the States showed that the shortage of labour had been overestimated. In Massachusetts no more than a tenth of the supposed shortage existed. On the other hand in fifty-six counties of the State of New York which were carefully canvassed there were about 15,000 fewer men on the farms in April 1917 than in 1916. More or less the scarcity was found everywhere. The problem was to connect the available labourers with the demand for them.

In different States this problem was variously solved — most satisfactorily, perhaps, in Massachusetts. The Committee on Public Safety of the Commonwealth of Massachusetts employed a State labour agent. He in turn appointed a county representative in connection with each of the farm bureaux of the State. The county men secured representatives on each of the town and city food committees, numbering 326. The labour agent had to localize the work. Each town food committee was expected, through its local agent, to satisfy the local needs for labour as far as possible. What the town agent could not do was referred to the county agent who, in his turn, referred what was beyond him to the State agent. Variations of this plan were followed by different States.

Ohio was divided into twenty-one employment divisions in each of which there is a free employment office. Fifty-five county agricultural agents, who are supervised by the agricultural division of the Ohio branch of the Council of National Defence and are paid employees, co-operate with the offices. The agent must help the farmer in every possible way. He must learn the farmers' needs and then forward his

orders to the superintendent of the employment office in his division. The county commissions have also appointed in each county a food and crop commissioner who has been asked to appoint township food and crop commissioners. These commissioners, who are unpaid, help in every way to increase the cultivated acreage, survey conditions, etc. An enquiry form, asking for data as to acreage under crops and the need for labour, was distributed. About one third of the farms asked to have additional help either immediately or for the harvest.

We cannot here give details as to all the methods followed by the various States. Where there has been no regular organization the labour of schoolboys, industrial workers, students and boy scouts has sometimes been utilized. The Farm Labour Bureau of Baltimore has perfected an organization whereby groups of five or six men will be supplied to similar groups of farmers who agree to use their labour co-operatively. An Act passed by the Maryland legislature provides that all able-bodied men between the ages of twenty and fifty who are not otherwise employed shall be compelled by the State to work on the farms or the public roads. This law is directed especially against the negroes who in many small towns have taken advantage of the high wages to work only two or three days a week.

The available information, taken together, indicates that the supply of labour last year was sufficient for the continuous work of farms, and also for the seasonal work which, like fruit-picking, lasts a few weeks or a few days, or for which men are engaged by the day, as they are for the hay and corn harvests.

It is evident that only a complete organization of the country's resources in labour will place the governments of the various States in a position effectively to apply the food policy projected by the Federal government and imposed by the conditions of war.

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To conclude: the United States have made a considerable effort to meet the imperious necessity to which the effect of the prolongation of the world war on the food supply has given rise. The Federal administration has indicated broadly the lines along which activity should be directed, and each State has, in following these, taken into account the special conditions of its soil and its population. As far as production is concerned the happiest results have already been obtained, and it is possible to anticipate that the energy expended will give birth to a more scientific organization of agricultural resources and their employment, which will, after the war, be permanently profitable to society generally.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

CANADA.

1. THE DAIRY INDUSTRY IN THE PRAIRIE PROVINCES. — COLQUETTE (R. D.) in *The Grain Growers' Guide*, Winnipeg, 28 November 1917.

Alberta, Saskatchewan and Manitoba are the first dairy-farming provinces in the Dominion. It is not as regards quantity that they lead. Ontario produces in a year more dairy produce than they do in three. Quebec produces more than they do and the maritime provinces as much. Their pre-eminence is due to the essential fact that they have gone further than the other provinces in solving the problem of grading butter and cream. In 1916 graded cream was used to make 98 per cent. of the butter produced in Alberta, and about 65 per cent. of that produced in Saskatchewan and Manitoba. In each of these provinces moreover full arrangements have been made for grading creamery butter, most of which, except that sold locally, is sold on the government's grade certificate.

Province of Alberta. — Milk and dairy produce bring into Alberta about \$15,000,000 a year. About 23,500,000 pounds of butter and about 1,000,000 pounds of cheese are annually made in the province.

Twenty years ago the dairy industry was in a bad state: dairymen and farmers had no market, no facilities for transport and no experience. In 1897 the Dominion government began to foster the business of dairies in the West. Dr. J. W. Robertson organized co-operative creamery associations under government management, some of them in Alberta. In 1905, however, the province of Alberta was formed, and the provincial government thereupon naturally succeeded to the duty of encouraging the dairy industry. The encouragement it gave to co-operation did not include any attempt to suppress some independent and individual creameries which had meanwhile arisen. Since the province was sparsely settled and only small amounts of cream were available in some districts, the opening up of railways gave a great opportunity to large central creameries. Thus some strong individual companies came into being; and co-operation in this industry has not on the whole made much progress in Alberta.

A system of government grading was established by the Dairy Commissioner Marker. The manufacturer soon discovered that it paid him both to give a little extra care to production, thus obtaining good grades for his products, and to buy graded cream from the farmer, thus receiving a guarantee of its quality. In a short time the farmer's cream and the manufacturer's cheese and butter were alike being graded by government, and sold on the basis of their grades.

There are now two grading stations, at Calgary and at Edmonton. In connection with them the government conducts a selling service which can be utilized by any creamery.

Keen competition, which is in some cases unhealthy, has developed between the companies.

Province of Saskatchewan. — In Saskatchewan, on the other hand, the dairy industry has developed on co-operative lines. The co-operative creameries have amalgamated in the Saskatchewan Co-operative Creameries, Ltd., which works twenty creameries in different places.

Before the province of Saskatchewan was formed in 1905, the dairy department at Ottawa had inaugurated a scheme for giving aid to the creameries. The department provided operators in districts in which the farmers would subscribe the value of the plant; and advanced funds on capital account, retaining one cent per pound of butter towards repayment, and giving credit on the shares of providers of cream. Each creamery had to do its own financing and make its sales separately, and very often, because it had no storage, had to sell its butter at a loss as soon as it was made. Conditions became so bad that most of these creameries disappeared finally. The provincial government decided to give financial aid to those remaining, making loans on capital account, and also decided that the dairy department should take over the creameries, on a lease renewable from year to year, and operate them, selling the butter collectively and managing all the finance, making large payments in advance when any cream was delivered, and dividing any surplus remaining at the end of a season, after provision for a small reserve, among the providers of cream in proportion to the amount of butter fat each of them had supplied. A dairy convention, which was held annually, brought representatives of all the creameries together for discussion of the industry. Among the advantages secured were a centralization of effort and a closer connection between the supplier of the milk and the creamery and management. The grading of cream was also inaugurated and was made the basis of payment. The policy adopted was largely responsible for the fact that while 160,000 pounds of butter were produced in 1907, 2,639,600 pounds were produced in 1916, from the cream supplied by 7,205 farmers, and were valued at \$ 711,092. After the local demand has been satisfied most of the butter is sent to British Columbia where it finds a fast growing market.

The annual conventions brought the dairymen together from all parts of the province and made them acquainted with each other. When the proposal to consolidate the small local companies in one strong company was mooted it was unanimously approved. The Saskatchewan Co-operative Creameries Ltd, having \$500,000 of capital stock, was therefore formed, and took over the management of the twenty local creameries on 1 November 1917. These creameries are situated at Oxbow, Cudworth, Shellbrook, Lloydminster, Birch Hills, Henribourg, Melville, Lanagan, Unity, Fiske, Regina, Canora, Wadena, Moosomin, Langenburg, Tantallon, Kerrobert, Lemberg, Melfort and Vonda.

To provide cold storage the company has begun to enlarge the cold

storage plant at their North Battleford creamery, and has bought the large Early plant at Saskatoon which was unfinished when the war began. This latter plant will cost about \$ 85,000 and will be the largest in West Canada.

The shares of the company are of \$ 20 each. No person can hold more than \$1,000 in the company, and all shareholders are asked to subscribe for at least five shares, 25 per cent. being payable at the time of subscription.

Province of Manitoba. — In Manitoba there are no creameries owned by government. The early development of large centres of population helped the establishment of large dairies to which quantities of cream were sent from outlying places. Of late however this process of centralization has been reversed, and some of the large central firms are buying or building small creameries at outlying points.

The output of dairy produce has increased steadily. According to reports received towards the end of the year the total production of butter in 1917 was expected to amount to seven million pounds as against six and a half million in 1916. Some of the co-operative creameries do a good business, but some, which are badly managed and do not grade their products, barely make ends meet. Usually the price per pound of butter of a given grade is two cents less than that of the grade above it. Grading is conducted under the supervision of the competent department and inspected carloads are sold on government grade certificates.

Manitoba has a large local market for butter. The exported butter goes west to Vancouver and east to Port Arthur, Fort William, Montreal, and Toronto, and is all sold on grade certificates.

There are some twenty-two cheese factories in the province, twelve of which are co-operative. Enough cheese is not being made to supply the home market, but production is increasing and it was estimated that about a million pounds would be sold in 1917. The practice of buying milk for making cheese on the basis of its content of fat was begun in 1916. It is expected that in 1918 all cheese factories will pay for milk according to its quality, and that a beginning will be made in grading cheese.

2. THE NEW FEDERAL ACT AND TRADE IN LIVE STOCK. — *The Grain Growers' Guide*, Winnipeg, 12 December 1917.

One of the hindrances to increased production of live stock in Canada has been a feeling among producers that they could not depend on fair dealing when once the stock had left their own yards. For the last two years the Dominion Department of Agriculture has been maintaining officials at some of the most important stock yards in Canada, for the last year at practically every central market there. These men have kept statistics as to the number and classes of all kinds of live stock passing through the yards, and have closely observed the methods of conducting these yards and

the trading practices followed in them. The information thus collected formed, with information secured from other sources, a basis for satisfying many demands for government regulation of stockyards and poultry marketing.

The result was the Act, passed during last session of the parliament at Ottawa, which received the assent on 20 September 1917. Its main provisions are as follows :

There shall be a live stock exchange in connection with each stockyard conducted under the Act, and every commission merchant doing business at the yards must belong to such an exchange unless he have a special license from the Minister of Agriculture. Farmers and drovers may however sell their stock in any yard.

A live stock exchange shall not become active until the by-laws regulating its management and business have been duly approved by the Minister of Agriculture, and until the latter have sent a written notification of his approval to the secretary of the exchange in question.

Sections 6, 7 and 9 of this new Live Stock Act provide for regulation as follows —

" Every stockyard shall be constructed and equipped in accordance with the regulations, and no stockyard shall be operated or used until it has been inspected and approved by the Minister or an inspector, and every stockyard shall at all times be open to inspection.

" The owner, lessee, occupier or operator of any stockyard shall manage such stockyard in conformity with written by-laws, such by-laws and the schedule of fees and charges to be approved by the Minister.

" Any stockyard not operated or maintained in conformity with the regulations may be closed by order of the Minister, but no such order shall issue until thirty days after written notice has been given to the owner, lessee, occupier or operator of such stockyard specifying the reasons for which it is proposed to issue such an order; and the Minister shall consider any objections offered by the owner, lessee, occupier or operator to the issue of a closing order.

" The Governor-in-Council may make regulations prescribing : a) the manner in which stockyards are to be constructed, equipped, maintained and operated ; b) the manner in which complaints against commission merchants and the operation, maintenance or management of stockyards shall be made and investigated ; c) the manner in which live stock, meat, poultry, eggs and wool shall be graded and branded or marked, and what shall be the size of packages containing meat, eggs and poultry, the kind of package that may be used, and how such packages shall be branded, marked or labelled "

The provisions of this Act do not apply to stockyards now active until three months' notice has been given. Violations of the Act are punishable by severe fines or imprisonment.

At present the public markets of Canada are under private control or are regulated by corporations. The principal live stock markets of the West are conducted by companies subsidiary to the three great railway

systems. Obviously the officials have no inducement to look after the interests of those who send stock to the markets.

The new Act is intended to remedy this regrettable state of affairs.

ITALY.

A FEDERATION AMONG PROVINCES AND COMMUNES FOR THE ADVANCE OF ZOOTECHNOLOGY. — *La Mutualità Agraria*, Rome, No. 28, 10 November 1917.

On the initiative of the *Istituto Nazionale per la Mutualità Agraria* the *Federazione fra provincie e comuni per l'incremento della zootecnia* was formed in Rome on the 6th of last November. More than forty provincial administrations and the chief communes of Italy — among them those of Rome, Turin, Milan and Bologna — have adhered to it. The following are its objects: *a*) to encourage, in agreement with local agricultural, zootechnical and veterinary associations, the organization of breeders; *b*) to agitate, in the matter of the various zootechnical problems and, in relation with the State and public bodies, to obtain grants to local zootechnical activity; *c*) to serve as intermediary between the State and local bodies for the making and payment of such grants; *d*) to illustrate with monographs the races of animals bred in the various regions of Italy, making their prices known, and generally contributing to the stimulation of all national and local enterprise which aims at the development and the perfecting of breeding. The federation (1) includes members belonging to two categories: *a*) effective members, *b*) consulting members. Only the provincial administrations and the communes are effective members. The consulting members are the breeding associations and commissions, the sections of the *Associazione nazionale veterinaria*, and persons who give themselves up to breeding and are admitted by the committee of the consulting members.

The resources for the federation's activity are furnished by: *a*) the annual subscriptions of the effective and the consulting members; *b*) the contributions of the State and other bodies. The subscriptions are 50 liras for a province, as much for a commune having more than 50,000 inhabitants, 25 liras for a commune with a less population, 10 liras for collective and 5 liras for individual consulting members.

Every year, at the time of choosing the directing council, a zootechnical congress will be held in one of the 69 provincial capitals and will be followed by the members' meeting in which all effective and consulting members will take part. This meeting will be summoned at least ten days before the date fixed for it, and will discuss and approve the balance-sheet and the report on the society's activity and choose at two distinct sittings the directing council and the committee of consulting members. The former is composed of seven members of whom one represents the *Istituto Nazionale per la Mutualità Agraria*. It is chosen by the meeting of effective members,

(1) See in *La Mutualità Agraria*, the organ of the *Istituto Nazionale per la Mutualità Agraria*, No. 26, 20 October 1917, the by-laws of the federation.

holds office for one year, chooses from its number a president and a vice-president, administers the federation, and takes the initiative in following the federation's aims, availing itself on points of technique of the services of the committee of consulting members. This latter is composed of seven members and chooses from its number a president and a vice-president. It is itself chosen by the meeting of consulting members. It examines the technical points submitted to it by the directing council and it makes proposals with regard to zootechnology to this council. The federation will have a technical manager nominated by the directing council.

SPAIN.

FORMATION OF AN OFFICIAL BUREAU OF INFORMATION FOR THE PLACING OF WORKMEN. — *Gaceta de Madrid*, No. 146, 26 May 1917.

To lessen the labour crises which are frequent in Spain the government has recently formed at the Ministry of Fomento and by decree an office of information for the placing of workmen.

Agricultural labour has, like industrial labour, suffered from forced unemployment which has, particularly in certain regions, taken on an endemic character, chiefly as a consequence of the insufficient and irregular rainfall, whereby intensive agriculture is rendered impossible. There ensue a frequent disturbance of production, and unemployment among labourers. At the same time the lack of permanent work in the country encourages urbanism, which in its turn disturbs the labour market of towns.

Since there are no statistics as to labour, labour organizations being as yet little developed, the government does not seek to solve definitely this problem which varies in gravity with districts. Government seeks only, by forming this office, to facilitate employment on works of public utility, in mines and on farms.

By the terms of the first article of the decree of 25 May 1917 this office "is charged to co-ordinate the demand and supply of home labour and to take other adequate measures to combat unemployment".

The office gives its services gratis to workmen and employers and is expected to act quite impartially. If conflict between workmen and employers arise in any place the fact will be communicated to the persons who have applied for employment and who may be affected, and the office will suspend its activity on their behalf.

No offers of or demands for employment are transmitted in districts where there is a manifest plethora of labour; and a particular effort is made not to encourage, but rather to hinder as much as possible, the unnecessary afflux of labour to towns. Help may be given to labourers in search of employment in the form of a payment towards the costs of a removal or payment of a sea passage. Travelling expenses are borne, wholly or partially and as the case may be, by the employers or the State, or by the work

men themselves who receive for such object advances afterwards to be deducted from their wages.

Companies transporting travellers are invited to establish special tariffs for workmen travelling in gangs or with their families in search of employment.

The Ministry of the Fomento is authorized to subject the new office to the supervision and direction of a commission comprising three representatives of the working class, three of the employers, and a president belonging neither to one or the other.

The office does not guarantee that its information is correct, nor does it guarantee the offers made respectively by the employers and workmen whom it brings into contact with each other or who enter into contracts by its means. It is bound however to use all its resources to avoid possibilities of disagreement, communicating to workpeople the terms which employers have accepted and all the information it possesses as to the work offered and the place in which this work is to be executed, and refusing to act as intermediary if it deem either the wages, the conditions or the place of a given piece of work to be unacceptable. It must act with similar frankness in the case of applications from beggars, vagabonds, incapables, and even boys and women who do not give the required guarantees as to their journey and as to their dwelling-place when they reach their destination.

Applications for employment are addressed to the office only through the competent mayor and the duly authorized regional or district employment agencies. Offers of employment are sent to the office directly by the representatives of the State administrations, of the provinces and of the municipalities, and generally by the contractors disposed to give employment. The office communicates these offers to the unemployed, by means of intimations sent to the civil governors, the *alcades* and the authorized employment agencies, and by notices inserted in the official newspapers.

The provisions of this decree apply only to workmen occupied on works of direct public interest, mining and agriculture. They are not applicable where an offer of work is made in a place near that where the workmen who may be affected are already.

UNITED STATES.

1. THE ORGANIZATION OF THE SALE OF AGRICULTURAL PRODUCE IN CALIFORNIA. — *First Annual Report of the State Market Director of California for the year ending December 31, 1916*, Sacramento, 1916. — *Statement of Harris Weinstock, State Market Director, relative to the Administration of the California State Market Law*, San Francisco, March 1917.

The legislature of California approved on 10 June 1915 an Act creating a State Commission Market, under the management of a State Commission Market Director, "to carry on the business of receiving from the producers of the agricultural, fishery, dairy and farm products of the State of California, and selling and disposing of such products on commission".

The director has the duty of establishing commission markets for the sale of such produce at the most suitable points in the State ; and of keeping producers informed, by every practicable means, with regard to conditions of supply and demand and the markets in which they may best dispose of their produce.

In discharging his colossal task the State Market Director has been inspired by the Federal Office of Markets and Rural Organizations at Washington, whose example he has followed. He has therefore sought to organize the growers into more effective marketing associations, so that collective marketing may take the place of individual bargaining, and farmers may have a better chance of realizing the true value of their produce while, at the same time, the waste and expense of distribution is minimized to the benefit of consumers.

His influence in the matter of organization has been felt by peach, prune and apricot growers, poultry producers in Central and Southern California, rice growers, olive growers, suppliers of milk, hop growers, and breeders of milch cows in the Sacramento and San Joaquin valleys.

Some interesting experiments have been made on his initiative, notably in organizing the sale of fish.

The work of the Commission during its first year has allowed the part it should play to be understood, and has caused certain amendments to the Act of 1915 to be placed before the legislature. These provide that the State Market Commission shall :

a) Gather and disseminate information as to supply, demand, prevailing prices and commercial movements of farm products, including information as to ordinary and cold storage ;

b) Promote the organization and operation of co-operative and other associations and organizations for improving relations among producers, distributors and consumers of such products ;

c) Foster co-operation between producers and distributors thereof in the interest of the public ;

d) Foster the standardizing, grading, inspection and labelling and help the handling, storage and sale of such products ;

e) Investigate the practices and methods and any transaction of commission merchants and others who receive, solicit and handle on commission or otherwise, such products, protecting the interest of the consigner ;

f) Arbitrate, on request, in any dispute between producers and distributors of such products ;

g) Certify, on request, for the protection of owners, buyers or creditors, warehouse receipts of such products, verifying quantities and qualities and charging a fee which will make the service at least self-supporting ;

h) Issue labels bearing the seal of the State Market Commission for Agricultural products, charging fees authorized by the State Market Director ;

i) Act on behalf of consumers of such products, protecting their interests ;

j) Advise producers and distributors as to distribution ;

- k) Improve and as far as possible extend the distribution and sale of Californian produce in the world's markets ;
- l) Reduce the cost of marketing, thus raising prices to the producer and lowering them to the consumer ;
- m) Promote in the interest of the producer, the distributor and the consumer, the economical and efficient distribution of the produce of Californian farms, dairies and fisheries.

* *

2. A NEW ORGANIZATION FOR INSPECTING AND STANDARDIZING CANNED FRUIT AND VEGETABLES IN CALIFORNIA. — *California Fruit News*, 22 December 1917.

The fruit and vegetable canners in South California have recently arranged for the optional inspection and supervision of their products, with a view to standardizing these and improving their quality.

Each canner who wishes to take advantage of the new organization signs individually an agreement with the National Canners' Association to the effect that he desires to standardize, grade and provide inspection for his output for three years, and that he therefore agrees for this period to be a member of the National Canners' Association, to observe all the rules it may make, and to provide for the expenses of a chief inspector and of such number of assistant inspectors as are needed for the association's work, as well as for other expenses of the association incidental on its fulfilment of the agreement. The association is bound to provide for grading and standardizing and efficiently inspecting all the canned fruits and vegetables produced by the signatories of the agreement.

Funds to meet preliminary expenses are provided by initial payments by members based on the proportion borne by the annual business of each to the total annual business of all the members. Money is eventually to be raised by payments to the National Canners' Association based on the number of thousands of cans of each kind which a member uses during the season. An advisory board will proportion charges and deal with all local questions. It will consist of nine members who will act in conjunction with the National Canners' Association in carrying out the purposes of the agreement.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Sixteen other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets;

(b) communicate the above information as soon as possible to those interested;

(c) indicate the wages paid for farm work;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

*In quoting articles, please mention this REVIEW:
International Review of Agricultural Economics*

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS. ---

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119 30327	yards
1 Crown (100 keller) (Austria-Hungary)	=	10 <i>d.</i>	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1 <i>s.</i> 1 ¹ / ₃ <i>d.</i>	at par
1 Deciatine (2 tchetweit) (Russia)	=	2.69960	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ⁸⁸ / ₆₄ <i>d.</i>	at par
1 Dollar, gold, (\$) (100 cents) (United States)	=	4 <i>s.</i> 5 ¹ / ₁₆ <i>d.</i>	at par
1 Drachm, gold, (100 lepta) (Greece)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1 <i>s.</i> 7 53/ ₆₄ <i>d.</i>	at par
1 Franc (100 centimes) (France)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilomètre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold, (100 bani) (Rumania)	=	9 ⁸³ / ₆₄ <i>d.</i>	at par
1 Leu (100 statinki) (Bulgaria)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Lira (100 centesimi) (Italy)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Litre	}	0.21998	gallons
		0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 3/ ₄ <i>d.</i>	at par
1 Mark (100 penni) (Finland)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Metre	=	3.28084	feet
1 Milreis, gold, (Brazil)	=	2 <i>s.</i> 2 61/ ₆₄ <i>d.</i>	at par
1 Milreis, gold, (Portugal)	=	4 <i>s.</i> 5 19/ ₆₄ <i>d.</i>	at par
1 Peseta, gold, (100 céntimos) (Spain)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Peso, gold, (100 centavos) (Argentina)	=	3 <i>s.</i> 11 37/ ₆₄ <i>d.</i>	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	1 <i>s.</i> 0 13/ ₆₄ <i>d.</i>	at par
1 Fund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold, (100 kopeks) (Russia)	=	2 <i>s.</i> 1 3/ ₈ <i>d.</i>	at par
1 Rupee, silver, (16 annas) (British India)	=	1 <i>s.</i> 4 <i>d.</i>	at par
1 Talari (20 piastres) (Egypt)	=	4 <i>s.</i> 1 11/ ₃₂ <i>d.</i>	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold, (2 fun or 100 sen) (Japan)	=	2 <i>s.</i> 0 37/ ₆₄ <i>d.</i>	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

SPAIN.

SOME FORMS OF THE ACTIVITY OF THE ASSOCIATION
OF AGRICULTURISTS OF SPAIN IN 1916-1917.

SOURCES:

- MEMORIA QUE EL CONSEJO DE LA ASOCIACIÓN DE AGRICULTORES DE ESPAÑA PRESENTA A LA JUNTA GENERAL COMPRENSIVA DE TODOS LOS TRABAJOS REALIZADOS DURANTE EL AÑO SOCIAL DE 1916-1917 (*Memorial presented by the Council of the Association of Agriculturists of Spain to the General Meeting on the Work accomplished in 1916-1917*). Boletín de la Asociación de Agricultores de España, No. 96, Madrid, May 1917.
- CAJA DE CRÉDITO DE LA ASOCIACIÓN DE AGRICULTORES DE ESPAÑA. Memoria social del año 1916-1917 (*Credit Fund of the Association of Agriculturists of Spain. The Society's Memorial for 1916-1917*). Ibid., No. 97, Madrid, June 1917.
- MEMORIA QUE PRESENTA EL CONSEJO AL ESTUDIO DE LA JUNTA GENERAL EXTRAORDINARIA DEL DÍA 23 NOVIEMBRE DE 1916, CONVOCADA PARA OFRECER A SU APROBACIÓN LOS PROYECTOS DE CREACIÓN DE LAS CAJAS DE SEGUROS MUTUOS PARA PREVENIRSE DE LOS RIESGOS DEL PEDRISCO Y DE ACCIDENTES DE TRABAJO EN AGRICULTURA (*Memorial presented by the Council for Examination by the Extraordinary General Meeting of 23 November 1916, summoned to approve the plans for Forming two Funds of Mutual Insurance against the Risks of Hail and against the Accidents of Agricultural Labour*). Ibid., No 90, Madrid, November 1916.

Our readers are not without some knowledge of this association which is, in view of the early date of its foundation and its organization, one of the most important of Spanish institutions. It has been fully able gradually to adapt itself to the progress of the rural class.

We will here do no more than indicate briefly its chief forms of activity which are the management of the fund of agricultural credit and the creation of the fund for insurance against hail and the fund for insurance against the accidents of agricultural labour.

Before speaking of these special services we must however state that during the year 1916-1917 the office of legal consultation, which the association comprises, solved 118 problems submitted to it by members. Receipts under the head of subscriptions and State subsidies amounted to 22,690.31 pesetas and expenditure to 18,723.74 pesetas. When the year closed there was therefore a credit balance of 3,966.57 pesetas. The individuals enrolled as members of the association then numbered 763 and the collective members 195.

§ 1. THE FUND OF AGRICULTURAL CREDIT.

Our readers will recall (1) as to this fund that it was founded on 30 March 1916 and that its subscribed capital, totalling 392,000 pesetas, was in the form of personal securities and cash. Afterwards, on 8 April, there were subscriptions amounting to 115,500 pesetas, and the managing committee was therefore able to begin its activity with a sum which reached 507,500 pesetas.

In order to be able to begin business at once the managing committee entered into relations with the Bank of Spain, with a view to obtaining necessary funds on the security of the capital subscribed as stated. The provisions in force in this bank made the opening of a current credit account, guaranteed by securities, the easiest mode of reaching the desired end. The managing committee therefore decided to bring together the securities necessary for opening such an account at the bank, up to a value of 200,000 pesetas, using only the securities offered by its members. The securities brought together represented, according to current quotations on the day on which the account was opened, the value of 304,799 pesetas.

The capital necessary to beginning business having once been obtained, one of the committee's chief preoccupations was the necessary propaganda work for collecting a good clientèle. With this object a circular was sent to all institutions which had joined the association to apprise them that the fund had begun business. Quite at first many institutions approached the fund to ask for information, and to make proposals which did not always square with the various aims of the fund. Thus arose a work which was extremely complicated because it was necessary to obtain information as to the solvency of each society, and to answer question various in proportion to the great diversity of the several agricultural districts of Spain. In each of these districts the affording of agricultural credit involves many and different problems.

(1) See especially for the organization of the credit fund, our issue for January 1917, pages 7 to 12.

After this first period, which might be considered as one of experiment, there was another during which no progress was made. The committee therefore approached the societies which had joined the association and asked them why they had ceased to avail themselves of the services of the fund. The prompt and rapid advance made by the fund's business finally proved its usefulness and the safeness of its organization.

The memorial of the fund includes a report of the business done in its first year of activity, in which there was question of opening *current accounts of reciprocal credit*. This class of credit accounts allows clients the advantage of disposing, at sight, of a credit proportionate to their solvency, paying interest at the rate of only 5 per cent. on the sums they withdraw, while at the same time they undertake to deposit in the association's fund their credit balance on which they receive interest at the rate of $3\frac{3}{4}$ per cent.

At first business of this kind left hardly a margin to the fund but nevertheless, given the small costs incurred, the fund was able to undertake it. As the entries on the credit side of its books increased, the sums belonging to agriculturists have covered its insufficiency. Its role is to receive credit balances on the one hand in order to pay them out on the other whenever there is a call for them.

Since 5 per cent. is paid to the fund and it pays only $3\frac{3}{4}$ per cent., it will always have $1\frac{1}{4}$ per cent. for expenses. This difference is capable of reduction whenever it is found to be excessive.

The rural fund of Morata de Trajufia inaugurated this system of reciprocal credit accounts, and received for such end a credit of 25,000 pesetas. When the year closed 50,000 pesetas stood to this fund's credit. Afterwards it opened accounts of the same kind with the fund for mutual insurance against hail for 10,000 pesetas; with the fund for mutual insurance against the accidents of labour for 10,000 pesetas; with the Federation of Catholic Syndicates of Murcie for 50,000 pesetas; and with the Association of Agriculturists for 6,000 pesetas.

To resume: in only three months the fund of agricultural credit has made loans amounting to 124,000 pesetas; it has also paid 15,000 pesetas to constitute three cautionary payments necessary to the development of the insurance funds of which we will presently speak; and it is now considering the grant of new loans which will, added to the others, make a total of more than 200,000 pesetas, which constitutes the sums actually available for this credit fund at the Bank of Spain. Nevertheless, at the end of the year we are examining, the fund was, thanks to remittments by those holding current accounts, in possession of advances which it could employ on buying State securities up to the value of 51,500 pesetas. The following abstract from its books on 31 April 1917 resumes its business.

	Debit pesetas	Credit pesetas
Subscribed securities	308,700.50	
Public funds	340,162.45	
In hand	388.35	
Furniture	270.00	
Current accounts: debts.	16,375.10	
Interest { on current accounts. . .	141.05	
{ on loans	476.65	
Costs	29.00	
Bank of Spain { Accounts, pledged		
{ securities	359,500.00	
{ Deposit accounts	35,000.00	
Capital	—	614,000.00
Bank of Spain: Credit account . .	—	725.55
Current accounts: credit	—	54,500.00
Securities deposited to guarantee		
credit	—	369,500.00
Other securities deposited	—	35,000.00
Profit and loss	—	817.55
Total	1,064,543.10	1,064,543.10

§ 2. FUND FOR INSURANCE AGAINST HAIL AND THE ACCIDENTS OF LABOUR.

An extraordinary general meeting of the association was summoned for 23 November 1916 to approve a scheme for the constitution within the association of funds for insurance against the risks of hail and against the accidents of agricultural labour. The foundation of these was determined, the scheme being only slightly modified.

At the end of the business year we are examining only five months had passed since 23 November, and it was therefore impossible to have data as to the activity of the new funds. We will indicate the main lines on which they were instituted, for the summary nature of these notes will not allow us to enter into the details of their organization which at bottom conforms to the fundamental principles of mutuality. For insurance against the risks of hail the system which the competent fund has adopted is based on the following data: the frequency of falls of hail in the different districts, as shown by the official statistics; the predominant crops in the different districts; the classification of crops according to the resistance they offer to hail and the season in which they go through their various phases; the proportion of risk incurred by different kinds of crops (specific risk); the proportion of risk as shown by the frequency of hail in the several districts examined (topographical risk); certainty in valuing losses caused by hail;

equitable payment of indemnities ; necessity for the latter to be proportionate to available funds ; permanence of insurance for a determined period ; constitution of a reserve fund.

If insurance against hail is important, insurance against the accidents of labour to which agricultural labourers are exposed is so no less. According to the law in force in Spain on this point, works of agriculture and forestry in which motors worked by mechanical power are used create a liability on the part of the employer. The law states that this employer's liability will exist only where employees exposed to the danger due to the working of the machinery are concerned. Nevertheless the justice of the Spanish Courts of law has gone far further in interpreting the legal provisions. It has insisted that liability be acknowledged in many cases not contemplated by the law, cases which daily become more frequent. Hence the importance of the fund which the association has created.

This fund's system of mutuality is based on the rate of wages, on the duration of the insurance for five years, on the classification of risks in relation to the works of each farm and each industry, on a minimum premium, and on the formation of thrift and reserve funds. The minimum premium can be increased at the end of each year, for it governs the constitution of the thrift fund. But as the necessity of paying all indemnities, without reduction, has to be met at the end of each year of insurance, a supplementary indemnity, for cases in which the thrift fund is insufficient, will be established in view of the general nature of the risk. On the other hand the anticipated minimum can be diminished when the thrift fund exceeds the sums which have to be paid. The quota to be paid into the thrift fund will be determined in accordance with a classification of risks, distributed in various categories, which will be obtained by means of a scientific list of the works executed on farms and in rural industries, on the basis of a detailed specification of the proportionate risks.

The necessary funds for the constitution and working of these two insurance funds in their first years, before the number of the insured allows expenditure to be covered by the relevant part of premiums, have been estimated in anticipation as 150,000 pesetas, and this sum has been paid by the Association of Agriculturists.

The few data we have given as to the three principal functions of this association in the sphere of credit and thrift show that it plays a very important role as the material as well as the moral protector of the interests of the rural classes of Spain.

UNITED STATES.

A STATISTICAL ENQUIRY INTO CO-OPERATIVE ORGANIZATIONS.

OFFICIAL, SOURCE :

CO-OPERATIVE PURCHASING AND MARKETING ORGANIZATION AMONG FARMERS IN THE UNITED STATES. — United States Department of Agriculture, Bulletin No. 547, 19 September 1917.

In January 1914 the Office of Markets and Rural Organization undertook an enquiry into co-operative selling in the United States. The result of this enquiry may be said to constitute the statistics of co-operation in all the States of the Union. They were published towards the end of last year by the Federal Department of Agriculture, which added to them some very interesting data as to the growth of co-operation in the United States and the chief types of Co-operative societies found there.

§ 1. THE GROWTH OF CO-OPERATION IN THE UNITED STATES.

A) *Early History.* — Co-operative organization among farmers in the United States is usually regarded as a thing of recent origin, but there have in fact been farmers' organizations in the country since the latter part of the eighteenth century. The need for organized effort did not however become very apparent until about the middle of the nineteenth century. The first half of the nineteenth century, a period of rapid development in agriculture as in other industries, was largely a period of individual development where the farmer was concerned. About 1850 the need for organized effort which farmers felt gave rise to a number of attempts at co-operative purchasing and to the promotion of co-operative stores. The influence of the development of co-operation in England was felt. Many organizations were formed, but before any extensive enterprise of the kind could be carried out plans were defeated by the Civil War. After the peace there began a general movement of population towards the virgin lands of the Middle West. The consequent rapid development of the Middle West caused a widespread demand for co-operative organization among the farmers of that region. The need for organization was however felt less keenly than in the Eastern States where population was more dense and business was established on a firmer basis. In the South affairs were much disorganized as a result of the war: extensive changes in the industrial system were necessary and the readjustment was lengthy. Conditions were therefore less favourable than in the Middle West where the co-operative movement spread very rapidly when once it had begun.

B) *Types of Organization.* — The history of co-operative organization among farmers since the war is that of the growth and decline of a number of organizations, many of them local and others including States or the whole nation in their scope. Among the latter is the Grange which has several times occupied our attention (1). Other farmers' organizations were established about the same time as the Grange or during its decline. They include the National Farmers' Alliance and Industrial Union, the North-western National Farmers' Alliance, the National Agricultural Wheel and the Brothers of Freedom.

C) *Present Forms and Tendencies.* — The farmers' purchasing and marketing organizations of the present time may be divided into non co-operative capital stock companies and co-operative organizations. It is unfortunate that, as we have several times noticed in this review, so many American farmers' organizations are not founded on a strictly co-operative basis, and their development is undoubtedly hindered in consequence. Among the causes for this state of affairs is the fact that the laws of the various States have specifically provided for the organization of truly co-operative societies only within the last few years, and even now many States have no special laws which do this. The present laws governing co-operation in some States are so general in character that organizations formed in accordance with them do not necessarily embody the underlying principles of co-operation. Therefore a large number of farmers' organizations have been formed under general corporation laws. Among the general public there is no clear conception of the differences between co-operative and non-co-operative forms of organization. The separation of the farmers' organizations in the United States into these two groups is not a simple task. The main point to be considered is the extent to which an organization works for the benefit of the farmer. It may never declare a dividend to those it serves and yet be of profit to them. Many grain elevators, organized as stock companies, are examples of this. They have paid out their profits in the form of dividends on stock, yet have in many cases been of benefit to all those supplying their grain because they have paid a higher price for it than that which the farmers had previously received.

The farmers of the United States have undertaken many different forms of agriculture which have given rise to different kinds of co-operative associations. We will briefly notice these.

a) *Elevators.* — The growth of the movement to establish farmers' elevators was at first very slow but gradually it gained importance. Since 1900 a number of very successful farmers' elevators have been established in the grain growing States of the Middle West. As their position became sure they began to do more than handle grain. In some districts it is usual for them also to undertake the consignment of grain, and many of them have achieved marked success in handling such commodities as coal, lumber, bricks, flour, fodder, salt, twine, oils and other supplies necessary to the farmers.

(1) See our issues for June and October 1915.

Practically all the important Middle West grain States now have State associations of farmers' elevators. These associations make it possible for the local companies to keep in touch with each other and effectively promote their interests. A number of the State associations have formed the National Council of Farmers' Co-operative Associations, which represents the farmers' elevator companies where matters of interstate or national importance are at stake.

It is unfortunate that many farmers' elevator companies fail to observe co-operative principles.

b) *Creameries*. — There are approximately 5,500 creameries and 3,500 cheese factories in the United States at the present time. Most of them are situated east of the western boundary of Minnesota and Iowa. The organization of cheese factories dates from about the middle of last century and creameries for the manufacture of butter were founded a few years later. The early factories were usually co-operative in form. A number of co-operative factories were established in New England, in New York and the surrounding States. Creameries and cheese factories were not established in the North Central States until later, when the country was settled and farmers in general ceased only to grow grain and produced diversified crops. The first co-operative creamery in Minnesota was established in 1889. There are now more than 600 enterprises of the kind in that State.

The farmers' creameries have had to meet less systematic competition than the elevators, and their failures have been mainly due to deficient organization or their establishment in districts which did not afford them a sufficient supply of raw material. As a rule they observe co-operative principles better than the elevators, this fact being due to the character of their business. The production of grain is seasonal and the market for it fluctuates, and the farmers are accustomed to being paid for it at the time of delivery. Dairy production is less seasonal and the market for dairy produce more stable, while those who supply the creameries with milk are used to being paid for it once a month. It is therefore a common practice of creameries to deduct the expenses of operation, set aside the necessary reserve, and divide the net proceeds of the business among the suppliers of milk every month in accordance with the amount of butter fat each has delivered. Many of the farmers' creameries are therefore co-operative in the full sense of the word. Some of them set aside an amount which allows interest to be paid on the invested capital while others pay no interest on it. Many of them are non-stock organizations, the capital for building and equipping having been borrowed and being paid back by means of a small monthly assessment on the business done. In a few cases a creamery has bought out the holders of its capital stock with funds obtained by levying a small monthly assessment on the raw material delivered at the factory.

All the farmers' creameries are not however as strictly co-operative. Some pay cash for the raw material as it is delivered and therefore, as they must buy their butter fat on a safe margin, cannot work strictly on a basis of no profits. The surplus funds they obtain are divided among the suppliers of material *pro rata*, either quarterly or annually, or among the share-

holders as a dividend. In some cases, but less frequently than among the elevator companies, large dividends have thus been paid.

A few creameries have undertaken the marketing of eggs, usually supplying only the better trade, and selling the eggs according to their quality which has enabled them to obtain better prices than those given for ungraded eggs.

The activities of the farmers' creameries and cheese factories have been mainly local in character. A few co-operative dairy organizations have been formed to market their output but the tendency in this direction is not yet very general.

c) *Stores*. — A number of co-operative stores were in existence about the middle of last century, especially in the New England States. The seventy-seventh half-yearly report of the Lowell Co-operative Association, which was established in 1876, shows that in the six months ending 30 June 1914 suppliers' dividends amounting to about \$ 5,000 were distributed.

For various reasons a large number of failures have occurred among the farmers' co-operative stores. The business is less well understood by the farmer than is that of the elevators or the creameries, and he does not take its problems into consideration.

d) *Fruit and Vegetable Produce Associations*. — The marketing of the fruit crop is complicated by the perishable nature of the commodities handled and the fact that many of them are produced within certain restricted areas whereas they have to be distributed all over the United States and abroad. The fruit growers of the States have been attracted by the possibilities of marketing fruit co-operatively; and in the last twenty five-years many successful associations have been formed for this object, especially among the citrus fruit growers of California and the apple growers of the North Pacific States. The activity of these associations, which has been directed not only towards the sale but also towards the packing and standardization of fruit, has already occupied our attention (1). In other parts of the United States there are a number of similar associations. Some of them are in districts where fruit growing has only a secondary importance, and if their members do not depend on the fruit crop for a living their success is often small.

There are extensive organizations for marketing truck crops in some of the truck growing districts. Like some of the fruit associations they have been instrumental in establishing uniform grades and selling them under trademarked brands. There are also, scattered over the country, a number of local organizations for marketing truck or vegetable crops, many of them confining themselves to the marketing of potatoes.

e) *Cotton Organizations*. — The cotton growers of the South have many co-operative associations but they are not as well organized as the fruit growers, the grain farmers or the dairy farmers. Because of the common custom of securing advances on the growing crop from merchants and others, the marketing of the cotton crop has been largely taken out of the

(1) See our issue for July 1917, page 61.

farmers' hands. There are however a number of selling associations and co-operative warehouses, cotton gins and oilmills, which are controlled by the growers.

f) *Co-operative Purchase.* — Co-operative purchasing of supplies has been practised by the farmers of the United States for a long time. In some cases the business is carried on informally. The selling associations of the farmers frequently serve as mediums for the co-operative purchase of supplies.

§ 2. STATISTICS OF CO-OPERATION.

1) *Method of Enquiry.* — In January 1914 the Office of Markets and Rural organization secured a list of the co-operative marketing organizations in the United States. Through the Bureau of Crop Estimates of the Department of Agriculture a letter was sent to the voluntary correspondents as to crops scattered through the States, requesting each to supply the addresses of the marketing organizations in his territory. Through the States Relations Service of the department additional names were secured from the county agents. Some of the agricultural colleges, secretaries of State, and State Department of agriculture also furnished the available lists of organizations in their States. About 12,500 names of farmers' purchasing and marketing organizations were thus secured.

Question-forms asking for information as to the plan of organization, the number of members, the kind and volume of business, the method of distributing profits and other matters were sent to the organizations on the list compiled by the Department of Agriculture. Many were returned with the information that the organization in question had discontinued business. There were, owing to inaccuracies, some duplicates and some names of private enterprises on the list, and corrections reduced the number on it to 12,300. In all 5,424 organizations furnished information, more than 6,000 failing to report. Many of the latter are believed not to be actively in business and some probably did not report because they were private enterprises.

All the strictly private businesses and the stock companies in which a few stockholders appear to operate the business principally for their own benefit were eliminated. While no hard and fast rules of classification have been made there has been an attempt to include all the organizations comprising a number of farmers and working primarily for the benefit of these.

It is believed that the organizations which reported included most of the active businesses and that the information obtained gives a fairly complete summary of the facts as to co-operation in the United States between 1912 and 1915.

2) *Scope of the Enquiry.* — Of the tables which we give in the course of this article, Table I shows the total number of farmers' organizations reporting to the Office of Markets and Rural Organization in the several States and in the whole country. The column headed "Elevators and grain ware-

houses" includes the grain warehouses common in the North Pacific States as well as the regular grain elevators. Creameries and cheese factories have been grouped together because in a number of instances one plant makes both butter and cheese. As many associations handle both fruit and other vegetable produce there has been in their case a similar grouping. The miscellaneous class includes all enterprises which could not be otherwise classified. Of the 5,424 organizations included in this report, 1,637 are grain elevators and warehouses, 1,708 creameries and cheese factories, and 871 fruit and vegetable produce, 213 cotton, 275 stores, 43 tobacco, 96 live stock and 581 miscellaneous associations.

TABLE I. — *Total number of organizations included in the enquiry, classified by States and kinds of business.*

State	Total number of co-operative societies reporting	Kind of organization							
		Elevators and grain stores	Creameries and cheese factories	Co-operative sale of fruit and vegetable produce	Co-operative cotton	Co-operative stores	Co-operative sale of tobacco	Co-operative sale of live stock	Miscellaneous
Alabama	51	—	—	26	19	1	—	1	4
Arizona	7	—	—	3	1	—	—	—	3
Arkansas	89	—	1	63	15	3	—	—	7
California	197	—	26	124	2	11	—	—	34
Colorado	53	3	13	28	—	1	—	—	8
Connecticut	20	—	14	3	—	—	—	—	3
Delaware	5	—	3	1	—	—	—	—	1
Florida	69	—	—	55	2	—	—	—	12
Georgia	55	—	—	5	44	2	—	—	4
Idaho	59	9	6	17	—	1	—	—	26
Illinois	263	192	34	11	—	2	—	—	24
Indiana	84	27	27	19	—	—	—	—	11
Iowa	505	228	24	8	—	14	—	20	31
Kansas	246	153	6	10	—	30	—	2	39
Kentucky	66	1	6	15	—	6	21	—	17
Louisiana	44	—	—	34	3	—	—	—	7
Maine	71	1	7	19	—	5	—	—	39
Maryland	19	—	1	8	—	—	—	—	10
Massachusetts	31	—	10	5	—	11	—	—	5
Michigan	127	12	70	31	—	7	—	2	5
Minnesota	980	241	624	28	—	30	—	30	27
Mississippi	42	—	—	26	11	—	1	—	4
Missouri	73	13	15	34	1	6	—	1	3
Montana	51	27	12	7	—	2	—	—	3
Nebraska	282	183	15	7	—	6	—	25	46
Nevada	2	—	1	—	—	—	—	—	1
New Hampshire	8	—	8	—	—	—	—	—	—
New Jersey	20	—	2	9	—	4	—	—	5
New Mexico	13	—	—	3	—	—	—	—	10
New York	124	—	75	32	—	7	—	—	10
North Carolina	74	—	4	9	10	17	5	1	28
North Dakota	313	264	29	—	—	12	—	2	6
Ohio	97	31	29	16	—	4	7	1	9
Oklahoma	48	11	8	9	13	2	—	2	3
Oregon	85	16	16	40	—	8	—	—	5
Pennsylvania	66	—	48	4	—	4	2	—	8
Rhode Island	4	—	—	—	—	3	—	—	1
South Carolina	37	—	1	7	14	2	1	—	12
South Dakota	178	135	26	1	—	4	—	—	12
Tennessee	56	—	2	18	7	13	1	—	15
Texas	134	7	9	31	71	—	—	—	16
Utah	31	4	9	12	—	1	—	—	5
Vermont	23	—	22	—	—	—	—	—	1
Virginia	58	—	8	13	—	3	5	1	28
Washington	134	48	14	52	—	12	—	—	8
West Virginia	12	—	—	4	—	1	—	—	7
Wisconsin	402	23	301	24	—	32	—	7	15
Wyoming	16	8	2	—	—	2	—	1	3
Confederation	5,424	1,637	1,706	871	213	275	43	96	581

Table II shows the type of organization, the annual volume of business and the membership of the organizations reporting on these points, classified for each State and for all the United States. Those that conduct their business as ordinary stock companies have been placed in one class and those more truly co-operative in another. All the organizations placed in the latter class are not however without capital stock. A large number of them have capital stock, farmers' companies being most commonly organized on this basis.

The data collected refer to the years 1912, 1913, 1914 and 1915, new requests for information having been made in the course of the two latter of these years as the Bureau of Markets has gradually come to know of new names of societies. Many societies have furnished figures covering more than a year, and there are therefore some duplications. In order to arrive at the volume of business, the reports for the four years have all been taken into consideration. The total given for each year must not be taken as the total volume of business of all associations in that year. Altogether 889 associations reported their volume of business for 1912 ; 3,099 for 1913 ; 2,877 for 1914 ; and 534 for 1915. The average volume of business for 1912 and 1915 can be taken in every case to represent the true average owing to the small proportions of the total number reporting in these years.

The last three columns of Table II show the number of organizations of each class and the total number of organizations reporting their membership, and the total and average membership of each association. The average membership of all the associations reporting is 122. Tobacco associations have the largest average, 336 ; miscellaneous associations 231 ; stores 220 ; live stock associations 140 ; fruit and vegetable produce associations 124 ; elevators 102 ; cotton associations 87 ; and creameries and cheese factories 83.

TABLE II. — *Form of organization, volume of business and membership of agricultural co-operative societies.*

State	Form of organization		Volume of business				1915			Membership	
	Stock companies	Co-operative	1912	1913	1914	Number of societies	Volume of business	Number of societies	Volume of business	Number of societies	Average
Alabama:											
Fruit and vegetable produce	12	35	1	865,177	11	1	\$95,500	3	\$95,500	20	3,023
Cotton	11	6	1	4,802,000	7	1	1,500	1	1,500	9	1,177
Stores	1	1	1	100,000	1	1	120,000	1	120,000	1	15
Live stock	1	1	1	20,000	1	1	20,000	1	20,000	3	305
Miscellaneous	1	3	1	5,603,177	20	1	6,670,200	6	237,000	33	4,380
Total	12	35	1	404,513	14	1	333,510	6	30,500	33	139
Average	12	35	1	404,513	14	1	333,510	6	30,500	33	139
Arizona:											
Fruit and vegetable produce	2	1	1	45,000	1	1	266,500	1	266,500	3	220
Cotton	1	1	1	112,500	1	1	30,000	1	30,000	3	535
Miscellaneous	3	1	1	157,500	2	1	138,250	1	60,000	6	755
Total	5	1	1	78,750	2	1	404,250	1	60,000	6	126
Average	5	1	1	78,750	2	1	404,250	1	60,000	6	126
Arkansas:											
Creameries and cheese factories	12	19	1	1,412,204	36	1	1,500	1	1,500	59	66
Fruit and vegetable produce	7	8	1	356,348	11	1	1,102,292	4	28,111	9	3,917
Cotton	1	1	1	4,000	1	1	618,493	4	3,700	9	438
Stores	1	2	1	71,952	3	1	4,000	1	4,000	3	422
Miscellaneous	2	4	1	2,024,194	46	1	86,000	1	86,000	5	227
Total	22	63	1	44,011	52	1	1,812,285	9	33,611	76	5,004
Average	22	63	1	44,011	52	1	1,812,285	9	33,611	76	5,004
California:											
Creameries and cheese factories	16	8	1	4,313,791	16	1	3,705,083	1	3,705,083	18	1,313
Fruit and vegetable produce	62	59	52	20,709,498	31	1	11,756,078	3	2,835,816	109	13,877
Cotton	1	1	1	75,000	9	1	600,000	1	600,000	1	30
Stores	1	10	1	5,061,659	19	1	497,535	1	497,535	8	1,094
Miscellaneous	16	16	5	1,943,000	18	1	3,491,380	3	255,000	30	2,779
Total	16	16	5	1,943,000	18	1	3,491,380	3	255,000	30	2,779
Average	16	16	5	1,943,000	18	1	3,491,380	3	255,000	30	2,779

Colorado:												
Elevators	1	2	.....	8	.....	2	375,000	1	250,000	2	450	225
Creameries and cheese factories	8	5	.....	.....	.....	11	111,701	2	24,514	2	216	27
Fruit and vegetable produce	21	7	14	2,508,175	18	2,042,680	9	612,150	22	3,581	165	80
Stores	1	1	.....	.....	.....	.....	15,630	.....	.....	7	715	102
Miscellaneous	1	7	1	110,000	3	191,050	2	16,930	.....	.....	.....	.....
Total	31	22	15	2,628,175	29	2,345,831	25	1,302,251	4	399,814	41	5,082
Average	.....	.....	.....	174,545	.....	80,955	.....	52,900	.....	99,859	.....	124
Connecticut:												
Creameries and cheese factories	7	6	3	111,900	11	560,600	9	495,111	1	24,408	9	1,247
Fruit and vegetable produce	.....	2	.....	.....	.....	5,500	1	4,500	.....	.....	3	130
Miscellaneous	1	1	1	50,000	1	47,000	.....	.....	.....	.....	3	465
Total	8	9	4	161,900	13	613,100	10	499,611	1	24,408	15	1,842
Average	.....	.....	.....	40,475	.....	47,162	.....	49,961	.....	24,408	.....	123
Delaware:												
Creameries and cheese factories	.....	1	.....	.....	2	40,075	2	44,309	.....	.....	.....	.....
Fruit and vegetable produce	.....	.....	1	500,000	1	500,000	.....	.....	.....	.....	1	1,200
Miscellaneous	1	.....	.....	.....	1	20,000	1	20,000	.....	.....	1	3
Total	1	1	1	500,000	4	560,075	3	64,309	.....	.....	2	1,203
Average	.....	.....	.....	500,000	.....	140,019	.....	21,436	.....	.....	.....	602
Florida:												
Fruit and vegetable produce	3	46	1	90,000	25	1,682,200	27	1,988,200	5	82,500	50	2,053
Cotton	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	15
Miscellaneous	.....	7	.....	.....	4	300,400	6	352,350	.....	.....	7	467
Total	7	53	1	90,000	29	1,982,600	33	2,340,550	5	82,500	58	2,535
Average	.....	.....	.....	90,000	.....	68,366	.....	70,926	.....	16,500	.....	44
Georgia:												
Fruit and vegetable produce	1	4	1	2,250,000	2	11,000	2	13,000	1	5,000	5	522
Cotton	31	9	.....	.....	14	1,952,800	12	1,901,660	1	3,000	25	1,873
Stores	.....	2	.....	.....	.....	.....	.....	45,000	1	48,000	2	100
Miscellaneous	2	1	.....	.....	3	64,000	3	62,000	.....	.....	3	231
Total	34	16	1	2,250,000	19	2,027,800	18	2,021,660	3	56,000	35	2,731
Average	.....	.....	.....	2,250,000	.....	106,726	.....	112,315	.....	18,667	.....	76
Idaho:												
Elevators	7	1	1	3,000	5	161,867	3	117,500	.....	.....	9	508
Creameries and cheese factories	.....	5	1	4,000	2	50,000	4	445,000	1	150,000	6	902
Fruit and vegetable produce	1	12	.....	.....	9	450,000	7	275,700	.....	.....	15	1188
Stores	5	.....	.....	.....	.....	30,000	1	30,000	.....	.....	1	27
Miscellaneous	7	13	.....	.....	11	1,433,400	17	2,214,891	.....	.....	24	12,038
Total	21	33	2	7,000	28	2,118,267	32	2,604,091	1	150,000	55	14,663
Average	.....	.....	.....	3,500	.....	75,650	.....	84,190	.....	150,000	.....	267

UNITED STATES - CO-OPERATION AND ASSOCIATION

State	Form of organization	Volume of business						1915			Membership		
		1912		1913		1914		Volume of business		Number of societies	Total	Average	
		Stock companies	Co-operative	Number of societies	Volume of business	Number of societies	Volume of business	Number of societies	Volume of business				
Illinois:	Elevators	171	20	23	\$4,249,784	139	\$24,605,105	126	\$22,263,757	8	\$1,305,000	172	17,873
	Canneries and cheese factories	24	1	2	25,000	23	613,746	23	573,142	2	7,900	25	2,503
	Fruit and vegetable produce	7	2	4	187,500	4	167,800	2	167,800	1	2,500	11	728
	Stores	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	587
	Miscellaneous	9	13	3	27,000	8	250,000	6	222,000	.....	.....	19	5,036
	Total	211	45	27	4,301,784	174	25,696,569	161	23,870,199	11	1,315,400	229	26,759
Average	.....	.....	.....	159,335	.....	147,680	.....	148,262	.....	.....	.....	.....
Indiana:	Elevators	17	8	8	1,303,417	16	2,370,044	12	1,053,271	2	45,000	24	2,498
	Canneries and cheese factories	16	9	8	131,586	21	658,558	15	605,800	10	110,000	19	856
	Fruit and vegetable produce	10	8	.....	.....	10	385,500	12	258,600	1	2,500	18	474
	Miscellaneous	7	3	2	.....	2	24,000	5	134,400	1	54,000	9	675
	Total	50	28	16	1,437,003	49	3,439,102	44	2,032,071	5	211,500	70	4,503
	Average	.....	.....	.....	91,063	.....	70,165	.....	46,658	.....	42,300	.....	.....
Iowa:	Elevators	104	106	56	8,865,248	158	23,650,965	111	16,389,706	1	408,700	209	24,937
	Canneries and cheese factories	35	159	63	3,806,578	161	8,427,224	117	5,431,843	17	862,486	176	18,085
	Fruit and vegetable produce	2	5	2	64,000	4	1,254,2	4	93,259	1	4,000	6	476
	Stores	5	7	2	10,000	7	508,000	8	377,567	.....	.....	12	1,843
	Live stock	3	11	10	1,893,956	15	2,707,453	3	338,000	.....	.....	17	2,493
	Miscellaneous	17	12	8	1,105,417	20	2,799,594	18	2,049,028	.....	.....	29	4,324
Total	166	300	141	15,919,199	371	38,420,868	261	24,679,403	19	1,275,186	449	52,758	
Average	.....	.....	.....	112,902	.....	103,560	.....	94,557	.....	67,168	.....	.....
Kansas:	Elevators	104	45	38	6,005,714	82	9,271,785	77	15,266,248	16	2,891,000	140	12,957
	Canneries and cheese factories	2	4	.....	.....	4	37,539	6	60,769	1	10,533	6	300
	Fruit and vegetable produce	2	7	1	90,000	7	325,282	8	426,296	1	200,000	10	1,373
	Stores	7	26	1	175,000	17	756,580	23	1,454,663	7	230,000	32	6,565
	Total	115	82	40	6,271,000	103	10,484,614	93	16,750,306	24	3,031,533	198	23,837
	Average	.....	.....	.....	154,300	.....	130,400	.....	178,266	.....	126,314	.....	.....

[illegible]

Montana:											
Elevators	12	14	2	175,000	8	1,485,099	13	244,822	5	735,000	23
Creameries and cheese factories	8	5	.....	.....	8	410,736	6	721,732	.....	.....	7
Fruit and vegetable produce	2	4	1	12,000	4	66,900	3	39,000	1	10,000	6
Stores	1	1	.....	.....	1	20,000	1	50,000	.....	.....	2
Miscellaneous	1	1	.....	.....	2	236,000	2	245,000	.....	.....	2
Total	24	25	3	187,000	23	2,224,735	25	3,504,554	6	745,000	40
Average	.....	.....	.....	62,333	.....	96,728	.....	140,182	.....	124,167	.....
Nebraska:											
Elevators	13	44	26	5,617,796	83	11,195,185	105	14,440,269	19	425,000	173
Creameries and cheese factories	6	9	1	31,868	6	550,000	7	632,918	.....	.....	12
Fruit and vegetable produce	3	4	1	40,000	6	33,832	6	388,002	.....	.....	12
Stores	4	2	1	36,000	1	36,000	1	2,000	.....	30,000	6
Live stock	8	15	2	116,163	9	746,222	14	1,201,559	1	300,000	4
Miscellaneous	21	21	2	229,270	17	1,816,410	27	3,396,245	4	655,000	37
Total	179	95	33	6,080,103	122	17,677,669	160	20,062,993	28	1,470,000	255
Average	.....	.....	.....	181,246	.....	120,309	.....	125,394	.....	52,500	.....
Nevada:											
Creameries and cheese factories	.....	1	.....	.....	1	7,810	1	8,000	.....	.....	1
Miscellaneous	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	.....	2	.....	.....	1	7,810	1	8,000	.....	.....	1
Average	.....	.....	.....	.....	.....	7,810	.....	8,000	.....	.....	.....
New Hampshire:											
Creameries and cheese factories	2	6	.....	.....	5	121,158	5	121,146	2	35,000	5
Average	.....	.....	.....	.....	.....	24,231	.....	24,229	.....	17,500	.....
New Jersey:											
Creameries and cheese factories	1	1	.....	.....	2	485,274	2	687,150	.....	.....	2
Fruit and vegetable produce	5	2	2	1,403,000	3	1,449,400	4	1,175,956	1	2,500	8
Stores	1	2	.....	.....	2	120,000	2	146,154	1	11,154	4
Miscellaneous	1	3	.....	.....	1	300	.....	.....	.....	.....	3
Total	8	8	2	1,403,000	8	2,155,174	8	2,009,260	2	13,654	17
Average	.....	.....	.....	701,500	.....	269,397	.....	251,158	.....	8,827	.....

TABLE II. — *Form of organization, volume of business and membership of agricultural co-operative societies (continued).*

State	Form of organization	Volume of business								Membership					
		1912		1913		1914		1915							
		Stock companies	Co-operative	Number of societies	Volume of business	Number of societies	Volume of business	Number of societies	Volume of business		Number of societies	Volume of business	Number of societies	Volume of business	Total	Average
Rhode Island:	2	1			2	\$101,630	1	\$31,000					3	612	214
		1											1	180	180
	Total	2	2		2	101,630	1	31,000					4	822	206
Average						50,815		31,000							
Carolina South:			1					1	5,500					56	56
		7						7	17,700			3	53,935	357	51
	10	2			6	466,500	6	292,500				9	531	61	
	2				1	4,500	2	48,000				2	8	4	
													1	18	18
	5	6			6	319,222	7	329,400			3	73,560	8	902	113
	Total	18	16		13	790,222	23	698,100			7	606,015	28	1,890	68
Average					60,786		39,352				86,574				
Dakota South:	105	29	9	80	9,584,116	86	11,922,155								
	9	17	8	18	506,107	16	314,663			19	3,206,000	120	11,719	98	
										5	78,396	21	1,898	89	
	1						80,000			1	70,000	1	7	7	
	3	1		2	80,998							3	184	61	
	7	4		8	684,655	9	496,311			1	33,000	9	1,242	138	
Total	123	53	18	108	10,851,836	112	12,813,129			26	3,887,396	154	15,060	98	
Average					114,213		114,403				150,264				

Texas:													
Total	12	33	1	2,000	16	363,938	32	800,350	15	416,300	49	6,100	124
Average				2,000		22,746		25,011		27,753			
Elevators	6	1	2	275,000	3	470,000	5	915,000			5	525	105
Creameries and cheese factories	5	2	2	37,000	4	182,004	6	237,989	2	30,500	5	217	43
Fruit and vegetable produce	8	23	2	2,600,000	14	2,582,104	13	719,700	2	21,700	28	5,612	200
Cotton	56	11			25	2,275,839	36	2,516,495	5	45,000	60	6,713	112
Miscellaneous	2	14					4	191,381	5	69,700	14	1,715	123
Total	77	51	6	2,912,000	46	5,509,047	64	4,480,505	14	155,400	112	14,782	132
Average				485,333		119,781		71,570		11,814			
Utah:													
Elevators	1	3			1	12,000	1	115,000	1	90,000	4	193	48
Creameries and cheese factories	5	4			5	229,723	7	266,709	1	18,000	8	626	78
Fruit and vegetable produce	6	3	3	51,903	8	1,008,439	3	835,893			9	1,548	172
Stores		1					1	3,600			1	457	457
Miscellaneous	2	2			2	55,000	5	141,500	1	90,000	5	916	183
Total	14	13	3	55,903	16	1,305,162	17	1,382,702	3	198,000	27	3,740	139
Average				18,634		81,573		86,159		66,000			
Vermont:													
Creameries and cheese factories	10	12	14	564,940	15	688,472	5	252,221	2	111,000	17	690	41
Miscellaneous		1									1	150	150
Total	10	13	14	564,940	15	688,472	5	252,221	2	111,000	18	849	47
Average				40,353		45,898		50,444		55,500			
Virginia:													
Creameries and cheese factories	7	1	1	10,000	4	105,500	4	153,000			5	256	51
Fruit and vegetable produce	4	8	4	4,195,000	7	3,816,000	5	16,400	2	52,000	9	3,659	404
Stores		3					1	5,000	1	5,000	3	158	53
Tobacco	3	2	1	22,000			1	133,722	1	150,000	5	402	80
Live stock		1									1	45	45
Miscellaneous	2	24			4	14,100	7	27,687	6	29,600	25	5,318	213
Total	16	39	6	4,227,000	15	5,935,600	18	365,809	10	236,600	48	9,818	205
Average				704,500		395,707		20,323		23,660			

TABLE II. — *Form of organization, volume of business and membership of agricultural co-operative societies (continued and ended).*

State	Form of organization	Volume of business						Membership							
		1912			1913			1914			1915				
		Stock companies	Number of societies	Volume of business	Number of societies	Volume of business	Number of societies	Volume of business	Number of societies	Volume of business	Number of societies	Total	Average		
Washington:	Elevators	37	11	5	\$1,400,000	32	\$5,215,431	36	\$6,021,978	7	\$1,448,000	47	4,207	90	
	Creameries and cheese factories	6	10	2	14,450	20	783,211	11	982,345	1	75,000	15	1,333	95	
	Fruit and vegetable produce	17	38	11	2,536,387	27	8,636,784	19	1,162,791	.....	.....	48	13,774	287
	Stores	3	.....	.....	.....	.....	686,335	11	8,966,267	2	305,000	12	14,494	958
	Miscellaneous	5	4	1	200,000	3	165,000	4	161,000	.....	.....	5	417	83
	Total	63	63	18	4,153,987	78	14,885,041	81	16,594,291	10	1,828,000	125	31,123	249	
Average . . . . .	.....	.....	.....	230,744	.....	190,795	.....	204,868	.....	182,800	.....	.....	.....	.....
West Virginia:	Fruit and vegetable produce	3	1	.....	.....	.....	.....	.....	.....	.....	.....	4	370	93
	Stores . . . . .	.....	1	.....	.....	.....	.....	.....	.....	1	37,000	1	150	150
	Miscellaneous . . . . .	.....	7	.....	.....	1	9,000	3	25,000	3	20,000	6	1,022	170
	Total	3	9	.....	.....	1	9,000	3	25,000	4	57,000	11	1,542	140
	Average	9,000	8,333	14,250

Wisconsin:	Elevators	13	6	.....	.....	14	743,704	13	1,056,055	2	217,921	19	2,325	122
	Creameries and cheese factories	119	171	81	.....	216	10,132,421	160	7,655,547	16	1,646,000	265	19,726	74
	Fruit and vegetable produce	12	12	.....	.....	17	784,808	16	877,105	.....	.....	22	1,806	82
	Stores	7	24	5	90,600	17	639,332	13	501,162	3	110,000	27	3,781	140	
	Live stock	1	6	.....	.....	3	11,046	3	274,164	1	20,000	7	1,093	156
	Miscellaneous	6	8	5	162,000	8	426,340	13	404,282	2	50,000	15	2,760	184	

[illegible]

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

AUSTRIA.

AN ASSOCIATION AMONG OWNERS OF WOODS IN GALICIA. — *Osterreichische Forst- und Jagd-Zeitung*, 35th year, No. 1787.

The owners of woods in Galicia formed a limited liability society in 1917. The paid-up working capital now amounts to a million crowns but will soon be brought up to three millions.

The society aims at reviving forestal economy in Galicia, which, as is known, possesses near the Bucovina the greatest forestal wealth of the monarchy, and at thus taking part in the economic resurrection of the province.

The Galician owners of woods adhering to this association have placed before themselves the following aims :

1) To industrialize forest property and develop the woodsawing industry in co-operation with the owners of woods.

2) To ensure the quantity of timber necessary to the economic resurrection of the country, in suchwise that both the public and the State and autonomous authorities have as much as they need at their disposal.

3) To be sparing in the consumption of wood.

4) To centralize the trade in felled timber.

5) To limit foreign speculation where production and the trade of districts are concerned, to increase means of communication, the supply of saws, workshops for using timber, etc., and to render it possible to derive a profit from woods scientifically and economically.

6) To promote the interests of members, helping them to draw up plans, to derive profit from their woods, to make valuations, and placing the advice of technical experts at their disposal.

7) To finance and grant facilities for furnishing public supplies.

BRITISH WEST INDIES.

AGRICULTURAL CREDIT SOCIETIES IN ST. LUCIA.

An ordinance for agricultural credit societies was passed in St. Lucia in 1915 and came into force on 1 January 1916. The Government Inspector of Agricultural Credit Societies has now submitted a report of these societies in their first year of activity, 1916-1917. Six societies have been registered which have altogether 151 members. The unqualified success of the year

is proved by the fact that arrangements have been made with the Colonial Bank to make advances to the societies, under the St. Lucia Agricultural Credit Societies' Ordinance, up to £3,000 at the rate of 7 per cent. per annum.

The inspector considers that the societies should do more than grant loans to members. Each society should arrange to handle its members' produce so that they receive full market value and be delivered from local speculators. Such co-operation would create confidence among members.

The ordinance may safely be said to have sounded the death-knell of the usurer, whose method it was to extort interest from the peasants at the rate of 2s. in the pound per month. The Agricultural Credit Societies' Ordinance, working along present lines, will eventually lead to the financial emancipation of the small planter and conduce to the general agricultural development of the island.

GREAT BRITAIN AND IRELAND.

1. THE ST. EDMUNDSBURY CO-OPERATIVE BACON FACTORY, LIMITED.— *Agricultural Gazette*, Ipswich, 28 January 1918.

The St. Edmundsbury Co-operative Bacon Factory, Limited, has its headquarters in a well equipped building at Elmswell, Bury St. Edmunds, close to Elmswell station, on one of the highest points in Suffolk and in a good central position.

The society was founded in 1911 and became active in 1912. Every member is bound to supply two pigs a year for every one pound share he holds in the company. He may hold as much as £200 in shares; but there is no limit to the number of pigs he may supply. Pigs are also received from non-members. For a prime well fed pig of the dead weight of 170 pounds and more the government-controlled maximum price is paid.

The Great Eastern Railway delivers about half the supply of pigs into the factory siding, and the other half come straight from the farms in the farmers' waggons. Pigs must be delivered on Mondays and Wednesdays or not later than 11 a. m. on Tuesdays and Thursdays, the days on which they are killed. They should all be ear-marked with the sender's official number on a tin clip; otherwise they are marked as they enter the premises. On their arrival they are placed in well drained pens, each owner's pigs in a separate pen. They are then weighed alive on an automatic scale which prints the weight of each pig on a separate ticket.

A short passage leads from the pens to the slaughterhouse, where each pig is quickly shackled by the hind leg, drawn up by a moving chain, and transported, head downwards, to the entrance of a narrow cemented passage where the butcher with a sharp knife cuts its throat. The cement on the walls and floors of this passage is impervious, and the floor slopes to a central drain which conveys the blood to a tank in an adjoining room. The pig passes through this passage and is quite dead when it reaches the scalding tub.

The blood is pumped up from the tank into a tub where it is boiled until it thickens, and it is then pressed in a special press into cakes, which can be used either as feeding-stuff, as to feed hens, or, less profitably, as manure.

Other waste material is treated in the same department as the blood. Bones, destroyed carcasses and all scraps of material and sweepings containing fat are boiled in a jacketed steam-pan under pressure, to extract and separate the fat which is saved as lard or for soapmaking. All the bones and meat thus reduced to a soft pulp are taken by the farmers, who add lime to pulp and so obtain a useful manure.

The slaughtered pig is lowered into a large scalding-tub, which holds four carcasses at once, and kept there until its hair becomes loose. It is then raised mechanically and placed on a long stout table, where as much hair as possible is removed by men with long knives or scrapers. The hair is collected and sold and is sorted by girls in the East end of London, the best bristles being used for brushes and the rest as stuffing.

When thoroughly scraped the pig is lifted by machinery onto continuous overhead bars on a single rail. The rail leads the pig through the singeing furnace, a large cylinder lined with fire-bricks and divided vertically into two halves. A powerful gas jet heats the furnace from the bottom and is accompanied by a jet of steam. A lever separates the two halves of the furnace to admit the pig, and then closes the furnace for from sixteen to twenty seconds, after which a brown pig issues from the other side. Any hair left after the scraping process has been removed by the singeing, and — what is more important. — the pores of the skin have been sealed so that the fat is firmer and the meat more easily cured.

After a couple of shower baths, between which a scraping intervenes, the pig is passed along the rail to the gutting-room, where the guts and pluck are removed. The guts are cleaned, scraped and salted: the best are used to make sausage skins, the inferior to make catgut. The pluck is placed in a cool room and sent to London the same night. The disembowelled pig is inspected, to see that it is free from disease; and, if so, proceeds to the weigh-bridge where its dead weight is automatically registered and recorded with the producer's number on a card.

The pigs are killed at the rate of forty or fifty an hour: the butcher's dexterity and the perfection of the apparatus are such that he can kill two a minute. From 350 to 400 carcasses can be seen at one time in the hanging and cutting room, where the pigs hang for from twelve to twenty-four hours, to cool slowly, and where the butchers remove their backbones and shoulderblades and their tails, and later their heads and feet, and finally rim their two sides to the familiar shape.

The sides are then artificially cooled in the chilling room to a temperature of 38° Fahrenheit. Thence they go to a large storeroom to be pickled in a mixture of salt, saltpetre and water which is supplied through a pipe, under pressure, from a large vat. The pipe is connected with a stout hollow and perforated needle which is inserted in the fleshy parts of the sides, placed in turn on a wooden table. Fine jets of the brine are forced into the

sides when a tap is turned on. Particular attention is given to the gammon and fore-end. The sides are next covered with clean dry salt. In this state they are placed, in piles of ten, skin downwards, on the floor of the airing room. After ten days or more the salt is brushed off them and they are left for another week or more to mature. They have then become what is known as green bacon and are ready to go to the smoking stoves.

Most of the bacon is despatched in its green state, because it thus travels best and because local taste in the matter of smoking, particularly as to the kind of wood used, is variable. The green sides are packed in bales of four or six and sent off by rail. Some smoking is however done by the factory's two stoves in which a mixture of oak and deal sawdust is burnt.

As regards the further employment of by-products, lard is melted and refined in one department, and then matured in cold storage before it is made into bladders or moulded into one pound blocks for sale. Partly owing to shortage of labour "bath chaps" are not made in the factory, but the pigs' heads are pickled in brine and then sold to makers of brine. The trotters are placed in a revolving cylinder filled with boiling water, where they are cleaned and where their friction against each other makes them smooth. Other parts of the pig are used by makers of soups.

A Lancashire boiler with a superheater in the power station provides steam to drive a fifty-six h. p. engine and steam for cooking, cleansing and scalding. The engine drives a dynamo which generates the current for the various electric motors driving machinery in the factory. The works are lit by electric incandescent lamps, and there is a storage battery for use when the engine is not running. The refrigerating machinery, an ammonia plant, absorbs some of the engine's power, and it pumps the factory's water-supply from a well 145 feet deep.

Last year the value of the bacon in the storeroom was at one time £12,000.

Suffolk now produces, in proportion to its area, more pigs than Yorkshire, the largest producer of pigs among English counties. It could and should conquer the Eastern counties' market for bacon.

* * *

2. A CO-OPERATIVE EGG AND POULTRY SOCIETY IN EAST ANGLIA — *Agricultural Gazette*, Ipswich, 28 January 1918.

The Framlingham and Eastern Counties Egg and Poultry Society, Limited, which has its head offices in the Railway Station Yard, Ipswich, was founded in 1903. It had at first to go through many struggles but the energy and perseverance of the secretary and committee have made it one of the largest societies of its kind in the country. Its membership has risen from 114 in 1903 to more than 1800. It is now working more than fifty egg collecting depots, nearly all of them in Suffolk and Norfolk. Its output of eggs in 1917 exceeded sixteen and a half millions. This large increase in output, in spite of the restrictions as to poultry-foods imposed by the Food

Controller, is a sign of the vigour of the society and the resourcefulness of its members.

Persons qualify for membership of the society by taking in it a 5s. share; and the society then buys their eggs and sells them again. The prices paid to members for their eggs were naturally higher in 1917 than in 1916 and a further rise is expected in 1918. The society gives a special bonus for large eggs, and it is hoped that members will thus be encouraged to improve their breeds of poultry.

The society's profits, after the expenses of collection and distribution have been paid, are assigned as follows: 1) 5 per cent. interest is paid on share capital; 2) not less than 10 per cent. of the net profits is divided among the workers in proportion to their wages; 3) 10 per cent. of the net profits is paid into a general reserve fund; 4) a bonus, determined at the annual meeting on the recommendation of the committee, is paid to the members in proportion to the business each of them has done; 5) sums are assigned to any purpose on which the general meeting decides, and 6) to a reserve fund as this meeting determines.

The total bonus available for distribution to the ordinary members for the year ending 30 September 1917 amounted to more than £1,300.

The society not only places a regular supply of fresh eggs on the market but also preserves a large number of eggs, and it is now reaping the benefit of its forethought in preserving eggs last spring. Although it deals chiefly in eggs it also sells poultry for its members, and a considerable extension of this department of its business is expected in the near future.

The Great Eastern Railway Company has been farsighted enough to co-operate in the society's work, which will eventually lead to an increase of traffic. The company's policy was illustrated by the help it gave in conducting the National Egg Laying Test. It provides facilities for the temporary storage of eggs at some of its stations, and it allows its station-masters and their wives to act as the society's agents.

HUNGARY.

THE ACTIVITY OF THE "HANGYA" SOCIETY, THE WHOLESALE SELLING SOCIETY AND CONSUMERS' UNION OF THE FEDERATION OF HUNGARIAN AGRICULTURISTS.

The report for 1916 for the Hangya Society contains the following details as to this wholesale selling society and consumers' union of the federation of Hungarian agriculturists.

1916 was the nineteenth year of the society's life. It has had to struggle very energetically in order to overcome the enormous difficulties which it has encountered in consequence of the war. About 300,000 families, comprising altogether about a million and a half consumers, who are members of 1386 distributing societies affiliated to the union, have been victualled by the latter. The report states that the feeding of the population in districts served by co-operative societies of this kind must be impartially

acknowledged to have been far more satisfactory than elsewhere. A fact proves this: the membership of co-operative societies belonging to the Hangya has considerably increased and a large number of new consumers' societies have at the same time been founded. Thus the number of consumers federated under the auspices of the Hangya passed from 952,775 in 1914 to 1,649,381 at the end of December 1916, which gives an increase of about 70 per cent. in two years.

The Minister of the Interior and the president of the National Victualling Committee have acknowledged the usefulness of this organization which they have recommended to the municipal authorities as a distributing organ.

Recognizing the public utility of co-operative societies, the Hungarian parliament, on the initiative and as a result of the action of the Hangya, passed a legislative measure reducing the tax on the profits of societies paying a dividend of no more than 5 per cent., to which category all societies adhering to the union belong, from 10 to 6 per cent. Moreover societies trading only with their own members were by article 34 of the laws of 1916 exempted from this tax while their profits did not exceed 6 per cent. of their circulating capital. These modifications of the system of taxing societies established by the laws of 1908 are of considerable importance to the ulterior development of the whole co-operative movement.

In consequence of the Rumanian invasion of Hungary, 127 federated co-operative societies had to support losses valued at about 1,500,000 crowns. But as soon as possible great efforts were made to reconstitute the societies which had been destroyed or had been particular sufferers.

The most striking event of 1916 was the constitution of the Hangya Industrial Society, the foundation capital of which reached 4,000,000 crowns. Most of its shares are held by the Hangya and the remainder by the co-operative societies, their managers, and partisans of co-operation. The results obtained by this new enterprise in its first year of activity allowed a dividend of 8 per cent. to be paid.

The "Hosztartás" society of Budapest, which is under the direction of the Hangya, made satisfactory progress in 1916. In 1913 it had hardly 3,000 members; at the end of 1916 it victualled 11,643 families comprising altogether 53,968 consumers. After deducting the amount of the various assignments from the profits realized, the society distributed an abatement of 3 per cent. on purchases. Since many employees were called to the colours it was impossible to establish new depots in the provinces. The value of provisions supplied in 1916 to adherent co-operative societies by the Hangya was 57,573,133 crowns, as against 46,064,331 crowns in the previous year. These figures give the result of nineteen years of progress, and the co-operative movement to which they bear witness allowed the Hangya to pay in dividends in 1916 a total sum of 865,000 crowns as against 570,000 crowns in 1915, that is 1,435,000 crowns in two years. Net profits amounted to 758,197 crowns, of which sum it was decided to employ the larger part on consolidating the union's financial position.

In the year under consideration 211 new members were registered who

held 273 founders' shares and 344 ordinary shares. If withdrawals of members and of shares be taken into account, there were, on 31 December 1916, 2,124 affiliated societies possessing 2,460 founders' shares and 7,838 ordinary shares. Out of this total membership of 2,124, 1,385 or 65 per cent. were co-operative societies. Eighty-two new societies were founded in 1916 and three others went into liquidation.

ITALY.

1. THE PRINCIPAL CATHOLIC AGRICULTURAL ORGANIZATIONS. — *Azione Sociale*, organ of the *Unione Economico-Sociale fra i Cattolici Italiani*, Faenza, No. 23, 1 to 15 December, 1917.

In dealing with Catholic organizations, on the basis of an important enquiry on their subject of which the results were published by the *Ufficio Nazionale del Lavoro* in 1911 (1), we have already had occasion to examine the important development in Italy of the economic movement of Catholics, especially in the sphere of co-operative credit. This movement, is, as is known, led by the *Unione Economico-Sociale* which has its headquarters at Faenza, the great centre for the co-ordination of all the economic and social organizations and institutions, both general and local, of Italian Catholics. "With the consolidation of the union as it is now constituted", the *Azione Sociale* for 1-15 December 1917 stated, "the strengthening of the system of the great syndical or class national organisms coincided. That is to say that every great industry and every great agricultural class has or will have given rise to a national syndicate or federation of the labourers who belong to it". We will indicate the chief Catholic organisms of an agricultural character which exist today.

a) *La Federazione Italiana dei Piccoli Proprietari*. — This "Italian Federation of Small Proprietors", which was constituted some years ago and has its headquarters at Milan, proposes to improve the economic and social status of the class with which it is concerned. It groups the provincial or district associations of small proprietors who cultivate their lands directly and pay not more than 50 liras a year to the principal tax. It has local branches in the communes and fractions of communes. Its organs are the meeting of delegates, the federal council and the college of revisers. Its programme may be resumed under the following heads: the public and permanent representation, both national and local, of the class of small land-owners; the exemption from taxation of the smallest properties; the disburdenment from and equalization of fiscal burdens; the incapacitation of units of land for sequestration and the increase of small credit; the development of mutuality and co-operation; the introduction of pensions for in-

(1) See *Le organizzazioni operose Cattoliche in Italia*, Ministry of Agriculture, Industry and Commerce, General Direction of Statistics and Labour, Ufficio del Lavoro, Rome, Officina Poligrafica Italiana, 1911. See also our issues (*Monthly Bulletin of Economic and Social Intelligence*) for August and September 1912.

validity and old age ; and of legislation as to forests and public waters ; the development of agricultural instruction (r).

b) *La Federazione Nazionale dei Mezzadri e Piccoli Affittuari*. — The " National Federation of Métayers and Small Leaseholders " has its headquarters at Faenza and aims at representing and protecting the class of agriculturists whom it includes. It comprises many local federations and branches in Romagna the Marches and Venetia and extends into Tuscany, Umbria and Latium. It has taken an active part in elaborating and applying all the war measures which favour agriculturists (agricultural licenses, agricultural contracts, etc.) A representative of the federation has been summoned by the government onto the commission for the study of social insurance against the accidents of agriculture and sickness.

c) *La Federazione Italiana dei Lavoratori Agricoli*. — This " Italian Federation of Agricultural Labourers " was constituted recently and has its headquarters at Treviso. It is the organization which groups those who till the soil for wages either as permanently engaged or as casual labourers. The federation's object is to study and to bring about social reforms which interest the agricultural proletariat, and to study reforms which could be introduced into settlers' agreements and labour contracts with a view to improving the condition of the labouring population. Treviso, Brescia, Lodi, Verona, Cremona and Crema are among the centres in which the organizations of agricultural labourers are strongest and most active. Others of them are in Latium, Southern Italy and Sicily. In Rome the federation has a special office.

Besides these three organizations which are concerned with agriculture as a trade, there are others which have a character and objects more strictly economic. The principal of them are the following :

1) *La Federazione Italiana delle Casse Rurali*. — The " Italian Federation of Rural Funds " is the strongest of existing Catholic organizations. It was legally constituted in Rome on 29 October 1917 in the form of a limited liability co-operative society having unlimited capital. It groups quite 34 federations which are in every part of Italy — Arezzo, Bari, Bologna, Bergamo, Cosenza, Faenza, Ferrara, Florence, Forlì, the island of Scala, Lodi, Mazzara del Vallo, Milan, Mondovì, Parma, Pistoia, Reggio Emilia, Reggio Calabria, Rome, Rovigo, etc. — and it represents altogether 1046 rural funds having 110,000 members and reserves and members' quotas amounting to 3,000,000 liras. The trust deposits collected from the funds amount to 85,000,000 liras and loans to members, who are predominantly agriculturists, to 50,000,000 liras. This federation exercises a multiple activity by means of its organs, among which the consulting office, which keeps constantly in touch with the adherent societies, is especially important. It also takes charge of relations with public authorities, calling the attention of

(1) This federation has recently published an interesting pamphlet by Dr. Remo Vigorelli, " I provvedimenti per la piccola proprietà " (*The Provisions for Small Property*). Pavia, Scuola Tip. Artigianelli, 1917.

the government, by means of special memorials, to the most urgent economic and fiscal problems which may interest the rural funds.

2) *La Federazione Nazionale delle Unioni Agricolt.* — The "National Federation of Agricultural Unions" was legally constituted at Milan on 26 April 1917 with a capital of 500,000 liras divided into 5,000 shares of 100 liras each. Its chief object is to provide the federated agricultural unions with primary materials — manures, machinery, etc. It is administered by a council of nine members elected at the meeting of shareholders. The agricultural unions have as a rule the legal form of co-operative societies for the acquisition and the distribution to members of merchandize, produce, implements, manures, seeds, etc.

3) *La Federazione Nazionale della Mutualità e Previdenza.* — The "National Federation of Mutuality and Thrift" was constituted in a national convention held at Rome by the *Unione Economico-Sociale fra i Cattolici Italiani*, which we have already mentioned, in August 1917. It aims at combining in a powerful union all the societies and funds of mutual aid which observe the principles of a) proper technical regulation; b) the autonomous and free co-ordination of institutions of mutuality within the scope of the law; c) the effective recognition of the moral, religious and national sentiments of members. This federation treats with single societies by means of the respective local federations. It develops its work by means of the national congress and the central committee. The former of these consists of representatives of the national class unions affording mutual aid and the local federations and secretariats, there being one representative for every thousand or fraction of a thousand members regularly inscribed by the national federation. The congress meets normally in the second quarter of every other year, when it considers the report of financial and moral activity, elects the central committee, the auditors and the councillors (*probi-viri*), and deals with other matters placed on its agenda by the central committee. The latter is composed of the president and of other ten members biennially elected by the congress, and it meets at least once a quarter to provide for the conduct of the federation, to which 1,500 mutual societies adhere.

We should also notice the *Federazione Nazionale delle Cooperative di Consumo* which has its office at Genoa; the *Federazione Bancaria Italiana* which groups almost all the Italian Catholic banks — numbering 34 on 31 December 1915 when their deposits amounted to more than 92 million and their reserves to more than 4 million liras; and the *Federazione Nazionale delle Cooperative di Produzione, Lavoro e Agricole* which is in course of formation.

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2. THE "ISTITUTO NAZIONALE DI CREDITO PER LA COOPERAZIONE".—Report presented to the extraordinary general meeting of shareholders held at Rome on 25 October 1917. Rome, Casa Editrice Italiana, 1917.

The National Institute of Credit for Co-operation, created by the royal decree of 15 August 1913, No. 1140, being in form a moral entity, sub-

ject to the supervision and inspection of the government, aims, as is known, at favouring the Italian co-operative movement in its various manifestations. With this object it undertakes the following operations for co-operative societies: discounts, direct subventions, advances on bills, credit and invoices, loans on pledges, collection of debts, deposits and current-accounts, etc. From a report presented to the extraordinary general meeting of shareholders held at Rome on the 25th of last October we take the following data as to the activity developed by the Institute:

The turnover was as follows:

in the first year	15,477,601.67	liras
in 1915	42,802,768.57	»
in 1916.	56,885,256.07	»
in the first nine months of 1917	60,213,081.49	»
giving a total of	<u>175,378,707.80</u>	»

This sum is a proof of the degree of activity which the various co-operative forms of production and labour, building, agriculture, credit and consumption have been able to deploy by means of the beneficent and fruitful work of the Institute.

Of this sum of 175,378,707.80 liras:

140,786,788.83 liras	were used for public works,
7,264,002.52	» for agriculture,
12,677,922.89	» to provide articles of consumption,
8,623,437.87	» to provide buildings,
6,026,555.69	» to provide for various industries.

The securities which were held therefore increased continuously, so that:

from	6,859,364.45 liras,	their value on 31 December 1914, they
reached	11,836,110.57	» at the end of 1915,
	18,826,334.58	» liras at the end of 1916
and	27,018,289.54	» on the 30th of last September.

This position showed an advance of more than ten millions on that of a year before. And requests connected with the present-day needs of consumption and agriculture are still plentiful.

The securities held on the 30th of last September (27,018,289.54 liras) were made up as follows:

15,256,417.87	liras	represented cessions of bills of public administrations ;
5,056,352	»	were invested in the production of soldiers' uniforms ;
1,084,000	»	were the remainder of the major credit of 1,499,000 liras granted for agricultural operations in the current agricultural year and guaranteed by a privilege on the harvest and stocks ;
3,500,205.76	»	were loans for the acquisition of food-stuffs ;
2,031,313.91	»	liras were subventions to various industries.

To develop and supervise this work from near at hand the Institute has, in addition to its central premises in Rome, secondary offices at Florence and Genoa, and five branches at Bologna, Naples, Ravenna, Venice and Verona, not to speak of a by no means negligible system of offices of inspection and assistance (1) which exercise the necessary administrative and technical supervision over co-operative societies in the north, centre and south of Italy.

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3. THE NATIONAL UNION OF DAIRY SOCIETIES IN 1916-1917. — Report for 1916-1917, Rome, 1917.

The *Unione Nazionale delle Latterie Sociali*, which has its headquarters in Rome, was founded in 1907 and aims at forwarding and at guarding the interests of dairy societies, at promoting their diffusion and at assisting in every way the cheesemaking industry and co-operative cheesemaking in Italy. By means of pamphlets of propaganda and various publications and the journal, *Il Caseificio Moderno*, which is its official organ, the union seeks to popularize among agriculturists co-operative principles and all knowledge tending to the increase and the improvement of a rational technique of cheesemaking. It groups today about 300 dairy societies, estimated to comprise 20,000 agriculturists and to treat more than half a million quintals of milk. In accordance with an order of the day, lately voted by the zootechnical committee, which establishes the principles to be observed by the union in developing its activity, it has continued during 1916-1917 an intensive activity directed towards the safeguarding and growth of the industry and trade in milk and its derivatives, and has done much propaganda work in favour of co-operation. Thanks to this propaganda sixteen dairy societies arose in this year, nine of them in Venetia,

(1) Among these the office recently set up Bologna, which we have already noticed in this review, for the inspection and assistance of agricultural co-operative societies, is worthy of note.

two in the Cremonese, two in the Bergamesque country and three in Piedmont. In addition the *Federazione provinciale delle latterie cremonesi* and the *Federazione delle latterie del circondario di Schio* were formed, and thus the number of the federations of dairy societies has risen to six (Reggio Emilia, Bergamo, Agordo, Cremona, Schio and Novara). The union has sent to the new societies and federations model by-laws, pamphlets of propaganda, and instructions as to beginning business, keeping accounts and finance, has brought them into touch with the important firms furnishing cheesemaking machinery and equipment and the material necessary to manufacturing the derivatives of milk, and has obtained for them rebatements of prices and facilities for making payments.

The federated dairies have moreover always been kept informed, by special bulletins, of all measures affecting the cheesemaking industry and all questions relevant to rural co-operation. Further, a report as to the course of the international market for milk and dairy produce, compiled by the Swiss Peasants' Union with which the National Union collaborates in Italy, has made the conditions of the world's milk industry known to them.

Another problem which has occupied the National Union is that of providing milk for the large urban centres. Appeal has often been made to the union by communal administrations and bodies of consumers to contract to furnish dairy produce and to give advice and information as to the organization of a supply thereof. Besides Rome, Venice, Florence and Milan, which are supplied by federated dairies, the communes of Piombino, Reggio Emilia, Bologna, Cremona, Naples and Genoa, and several co-operative consumers' societies have addressed themselves to the union. With certain of them negotiations are in course. As regards buttermaking, the union has invited the federated dairies to produce a greater quantity of butter, and proposes the formation of a "butter consortium" which shall regulate the production and consumption of this article of diet.

The programme of the union for 1918 can be resumed under the three following heads; a) to promote the formation of co-operative societies aiming at the treatment and sale in common of milk and its derivatives; b) to assist existing co-operative societies as regards their technique and administration; c) effectively to safeguard the interests of these societies, endeavouring to remove the obstacles to their regular working.

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4. THE CONSTITUTION OF A TRADING AGENCY FOR AGRICULTURAL CO-OPERATIVE SOCIETIES. — *La Cooperazione agricola*, organ of the *Ufficio di Ispezione e di assistenza per le cooperative agricole*, No. 5, Bologna, 25 November 1917.

Among the most important and practical activities of this Office of Inspection and Assistance for Agricultural Co-operative Societies, recently set up at Bologna by the *Istituto Nazionale di Credito per la Cooperazione*, the foundation of the agency called *Agenzia Commerciale delle Cooperative*

Agricola deserves particular attention. This agency was constituted in the form of a limited liability co-operative society and aims at promoting the development of agricultural trade and industry and the economic, moral and intellectual improvement of tillers of the soil by means of its adherent co-operative societies. To fulfil this aim it proposes : a) to produce or buy on behalf of its members articles useful to agriculture, especially machinery, manures, seeds, cattle-foods, and fertilisers ; b)) collectively to convert, treat, preserve and sell the products of members ; d) to encourage the purchase or hiring of rural estates by members ; e) to lend or let machinery and implements ; f) to promote, procure and manage insurance against injuries to goods, animals and persons ; g) to procure the information and means which will give the agricultural classes the advantage of better markets, by seeking especial facilities for them ; h) to promote exchanges and relations between co-operative societies and between them and others, both at home and abroad ; i) to act as simple intermediary between members and others, granting when necessary the agency's own security or giving credit to adherent societies, where there is question of a purchase or sale ; l) in general to take or encourage every initiative which may be of use to these societies, always with the aim of helping the agricultural classes employed on cultivation and husbandry.

When the administrative council thinks the step opportune this agency may constitute associations which will participate in the benefits enjoyed by the federated societies, and in every such case it will draw up suitable agreements and rules. It may itself join national or foreign societies having analogous aims. All agricultural co-operative societies and associations accepting the by-laws of the agency and admitted by the administrative council may belong to it. The share capital is constituted by an unlimited number of nominative shares worth 100 liras each, and these are the members' security for all the liabilities which they incur towards the agency.

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5. THE DEVELOPMENT OF CO-OPERATIVE LABOUR SOCIETIES IN THE PROVINCE OF PARMA. — *Movimento Cooperativo Parmense. Federazione delle Cooperative di Parma e Provincia*, Parma, 1917.

Besides the collective farms (1) there are some thirty consumers' co-operative societies in the province of Parma. In 1916 they had a membership of 4268 and sold altogether the value of 1,632,854 liras. Their capital was estimated as 244,751 liras. Twenty-seven co-operative labour societies should be added to their number (2). The origin of the latter, which represent one of the most characteristic forms of Italian co-operation, is explained as follows in a report of the federation of co-operative societies of Parma and the Parmesan province : " The working class has become aware

(1) See our issue for December 1917, page 14

(2) For the importance of co-operative labour societies in Italy see our issue for November 1914 (*Monthly Bulletin of Economic and Social Intelligence*), page 8.

that to obtain better conditions of life it is not enough to fight only the speculators who do business in merchandise. There must also be a struggle with private firms speculating in public or private works. 'Therefore the working class, strongly supported by the consumers' co-operative societies, has brought about the rise of co-operative labour societies whose object is precisely the elimination of the speculation of contractors. To attain this object these societies themselves undertake the execution of public and private works'. As in the case of other branches of the co-operative movement, the first societies to become active in this sphere were the labour organizations of Borgo San Donnino. Here co-operative labour actually preceded co-operative consumption. The first co-operative society to be formed there still exists. It is that of the masons, journeymen, etc., the constitution of which dates from 1896 and which began to develop especially after 1914. It has been entrusted with the execution of important public works up to a total amount of 1,200,000 liras. It has founded a thrift fund, in order to make grants to its members in case of sickness, which works very satisfactorily. Further, on the initiative of this society and others of the same type at Fontanella, Soragna and Zibello, the *Consorzio delle Co-operative di Produzione e Lavoro* has been founded, also at Borgo San Donnino, and undertakes numerous and important works for the sum of 724,366 liras.

The twenty-seven co-operative labour societies in the province of Parma had in 1916 a membership of 2,710 and a capital of 318,280 liras. We will indicate the value of the works executed by several of them since they have become active, adding in brackets the years of their foundation: *Cooperativa braccianti* (Labour Co-operative Society) of Fontanella (1907), 577,725 liras; *Cooperativa braccianti* of Soragna (1908), 721,000 liras; *Cooperativa braccianti* of Sissa (1910), 710,100 liras; *Cooperativa intercomunale terrazzieri* (Intercommunal Navvies' Co-operative Society) of Fontanella (1913), 236,397 liras. For lack of space we do not give similar figures for the other co-operative societies of this kind. It may however be stated without fear of exaggeration that the total turnover of the co-operative labour societies in the Parmesan district, almost all of which belong to the local federation, has in the ten years or so for which they have existed amounted to several million liras. As is shown in the report from which we have already quoted, they are not only a defensive arm against private contractors and a rampart against the spread of unemployment, but also the most successful school for enhancing the technical skill of the workmen who are already helped in the spheres of administration and trade by the consumers' co-operative societies.

RUSSIA.

1. CO-OPERATION IN SIBERIA. — *The Russian Co-operator*, Vol. II, No. 2. London, January, 1918.

We recently noticed the development of co-operation in the Siberian dairy industry in speaking of the Union of the Siberian Creamery Associa-

tions (1). This is only one among the many successes obtained by co-operation in Siberia where there are a large number of co-operative societies and their unions.

The following table shows their magnitude and importance :

Name of Union	Part of Siberia	Turnover — (Roubles)	During months 1917	Number of affiliated societies
Union of Altai	East	77,868,940	6	233 societies
Associations of Unions ("purchase and sale")	East	67,917,062	6	19 unions
Co-operator of Tomsk	East	10,175,885	4	198 societies
Association of co-operative societies of Mariinsk	East	8,399,818	4	169 "
Union of Altai Mountains	East	8,361,589	7	69 "
Union of West Siberian co-operative societies (Omsk)	Centre	7,849,523	2 1/2	—
Union of village co-operative societies (Altai)	East	6,552,252	4	—
Union of Tcheliabinsk	West	3,984,959	6 1/2	132 societies
Union of Pavlodarsk	South	3,540,472	5	—
Union of Semipalatinsk	South	3,296,254	3	—
Union of Kuznetsk	East	1,993,304	5	—
Union of Petropavlosk	West	510,638	1	—
Union of the Siberian creamery associations	All parts	more than 129,000,000	10 1/2	2,500 societies

This table covers only the societies and unions which are distributive or at once distributive and productive. If we add to their total turnover that of the credit unions, which have had an even larger development in Siberia, we obtain a total of several hundred million roubles.

The co-operative unions are energetically pursuing the policy of themselves becoming productive, which fact is important to Siberia in view of the slowness of the country's industrial development. Thus the Altai Union possesses its own soap factory and has lately established a manufactory of dairy implements; the "Tomsk Co-operator" has bought for 100,000 roubles large rope-works and intends also to manufacture boot-felt. A co-operative association in the province of Enisei has acquired a flour mill and purposes to buy yeast works. The Biisk Union of Credit Associations proposes to enlarge the large sawmill it owns and to organize the production of winnowing and threshing machinery and compressors of hay for horses. It is negotiating the purchase of large ironworks in Novo-

(1) See our issue for August 1917, page 19.

Nikolaievsk where it intends to set up an engineering workshop for repairing agricultural machinery ; it has begun to erect a creamery ; and it proposes to establish coach-works, ropeyards and a manufactory of bee-hives. The Pavlodarsk Association of Co-operative Societies has applied to the government for a lease of the local salt-lakes now in the hands of a private firm.

By far the largest programme of industrial undertakings is that of the newly formed Union of West Siberian Co-operative Societies. This programme includes the erection of a soap factory to cost 50,000 roubles and a saltmill to cost 35,000 roubles ; the establishment of leather and fur works at a cost of 350,000 roubles, of a cottonmill in Omsk costing 150,000 roubles, and an engineering workshop, for repairing agricultural machinery, costing 150,000 roubles. Further 50,000 roubles are to be spent on industries connected with the products of forestry (tan, turpentine, building material, etc.) ; and 100,000 roubles have been set aside to establish shipping on the Irtysh and Obi.

The Unions are also active in promoting local industries — agricultural in the first place. Some of the credit unions in Siberia are here prominent, notably the Novo-Nikolaievsk Central Union of Co-operative Credit Associations and the Altaï Central Credit Union which have set up special agricultural departments to deal with this branch of their work. The latter of these unions spends more than 17,700 roubles on this department, and the recent meeting of delegates also assigned 3,000 roubles to the establishment of agricultural courses for the population, 3,000 to agricultural research, and about 1,000 to the publication of popular literature on agricultural subjects and to the provision of grass seeds. Similarly the Union of Western Siberian Co-operative Associations has established an economic and commercial department which aims at furthering the economic welfare of the population by raising the standard of agriculture, promoting co-operative organization, selling the produce of its members, and buying requisites for them.

Most of the co-operative societies and unions of Siberia are doing much valuable work in assisting the spread of knowledge generally and carrying on a vigorous educational campaign. Thus the Union of Village Co-operative Societies of Tcherepanovo has assigned 3,000 roubles to the establishment of an agricultural school in its district, 2,000 roubles to the establishment of an elementary school and 500 roubles to the erection of a People's Palace. It has voted other sums to general educational activity and in aid of the Central Educational Committee of the Co-operative Societies of Altaï. This last-named committee is conducting an active educational campaign in the district of Altaï. The Altaï Credit Union has contributed 40,000 roubles to its funds and the Altaï Union of Co-operative Societies 30,000 roubles. The committee publishes a large number of leaflets on political questions, and supplies them not only to the co-operative but also to some of the non-co-operative organizations in the province. It has organized an extensive trade in books, and is supplying the villages with small libraries, costing from 8 to 20 roubles each. It has its own staff of instruc-

tors who are sent into the villages and who answer enquiries addressed to them.

The co-operative movement in Siberia has recently done much to popularize the principles of co-operation among small producers and artisans. In Vladivostock, for example, a new co-operative society of labour called "The Fisherman" has lately been organized by more than 400 local fishermen, netmakers, fish-salters, caviar producers, coopers, and others engaged in industries connected with the fish trade. This society undertakes to send goods to any part of Russia at wholesale prices, and to give information and advice as to the trade. In Irkutsk an artel is being organized by the local trade union of woodworkers; in Omsk it is proposed to organize a building artel.

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2. CONSTITUTION OF A COUNCIL OF PAN-RUSSIAN CO-OPERATIVE CONGRESSES
ВѢСТНИКЪ КООПЕРАЦИИ (*The Messenger of Co-operation*). Petrograd, June, September and October, 1917

A *Council of Pan-Russian Co-operative Congresses* was formed within the Pan-Russian Co-operative Congress which met from 25 to 28 May (7 to 10 June) 1917. The council is to be the central organization of the co-operative movement in Russia. It is composed of 32 members, representing the various regions and the most important co-operative associations, the Popular Bank of Moscow, the Muscovite co-operative consumers' society and the Federation for the Co-operative Sale of Flax. The council comprises or will comprise the following sections:

I. The *Section of Petrograd*, representing this town in the government.

II. The *Legal Section* which is responsible for explaining the new general co-operative law promulgated on 20 March 1917, for publishing model by-laws, for giving legal consultations to members of local co-operative societies, etc.

III. The *Economic Section* which must publish a "Yearbook of Co-operation".

IV. The *Educational Section* which comprises three sub-sections, respectively concerned with instruction in co-operation, instruction outside schools and popular education.

V. The *Instructors' Section* which is responsible for organizing congresses of instructors of co-operative societies, publishing their resolutions, editing an instructors' journal, keeping isolated instructors in touch with others, etc.

VI. The *Section of Administration and Publications* which does propaganda work by means of books, pamphlets, etc.,

VII. A *Central Co-operative Library* which is intended to develop until it becomes a Pan-Russian Co-operative Museum.

SPAIN.

THE NOMINATION OF INSPECTORS OF AGRICULTURAL PRODUCTS IN TRADE BY THE AGRICULTURAL ASSOCIATIONS — *Gaceta de Madrid*, No 293, Madrid, 20 October 1917.

The Spanish government promulgated on 19 October 1917 a decree which gives the agricultural syndicates and the official chambers of agriculture and commerce the option of nominating special inspectors who shall have a mandate to discover and denounce to the competent authorities all adulterations and frauds affecting the production and circulation of agricultural products.

This decree, in itself important, is especially so in Spain in view of the economic conditions of the country at the present time and the development of the Spanish movement towards association. The provisions of the decree, in that they enable the agricultural associations to pursue frauds in the trade in agricultural products, have as their chief object the safeguarding of these associations — especially such of them as give themselves up to the production and conversion of goods — against the unfair competition of unscrupulous private producers, a competition which could especially harm these producers' associations in their first period of activity. The nomination of the inspectors in question will be made by the societies and the agricultural chambers, but must be approved by the prefecture in which the nominating body resides and published in the official bulletin; for the decree gives the inspectors the status of public officials and the State will render them all the help they need for the fulfilment of their trust and the guarding of their persons.

As regards the procedure to be followed in ascertaining frauds, the decree provides that the inspectors take samples of the suspected goods and immediately remit them to special laboratories to be analysed. The owner of the goods in question may not oppose these proceedings in any way but he will have a right to payment for the quantity of merchandise requisitioned.

If the analysis prove the product examined to have been falsified or adulterated, the agricultural association on which the inspector depends, or the inspector himself in the name of this association, will make the denouncement to the competent authority.

The decree also lays down various rules as to the taking of samples and the formalities to be fulfilled after the analysis has been made. The samples of products to be analysed should be four in number; after the analysis three copies of a report should be drawn up giving an account of the transaction. One copy and one sample will be sent to the owner of the product; another copy and a second sample will remain with the inspector; and the third copy and two remaining samples will be sent by the inspector, with his own report, to the prefect of the province in order that the necessary steps may be taken.

Other rules established by the decree refer more particularly to the inspections — as to whether these should be made on the premises of the owners, on the public roads or during the transit of the merchandise. Where the inspected product has to be subjected to some alteration in order to allow samples thereof to be taken, the owner will have the right to a special indemnity corresponding to the amount of loss he suffers.

The right which inspectors will have, to denounce to the competent authority breaches of the rules established regarding the adulteration of products, will not exclude or limit any right which the agricultural associations concerned may have to make the merited denouncement on their own initiative.

The inspectors, whose salaries will be a charge on the agricultural associations who have nominated them, will have no right to indemnities nor to participation in any fines imposed on the owners of adulterated products. Such participation will however be, in the cases which the law contemplates, the right of the bodies on whom the inspectors depend.

Finally the decree declares that the office of inspector may not be held by any one following any industry or trade which deals with the agricultural products mentioned by the decree.

SWITZERLAND.

1. THE ORGANIZATION OF THE PRODUCTION AND DISTRIBUTION OF MILK, BUTTER AND CHEESE AND THE WORK OF THE FEDERATION OF THE DAIRIES OF GENEVA UNITED IN 1917. — *Journal d'Agriculture Suisse*, Geneva, 26 February 1917

The organization now regulating the whole distribution and consumption of dairy produce in Switzerland is the following. At the summit of the scale there is on the government side a *Federal Milk Office* which has replaced the milk providing service of the agricultural division of the Federal Department of Public Economy. On the producers' side there is the Central Union of Milk Producers which is composed of district federations including the united dairies of Geneva. Between these two institutions, the Federal Office and the Central Union of Producers, all arrangements for the provision of milk are examined and elaborated and prices are determined.

The Federation of the United Dairies of Geneva bound itself to the Union to devote all its produce to the victualling of the canton of Geneva. In this canton a *Central Milk Office*, recently formed, guards the independence of the milk trade from encroachments on the part of the administration. This office receives and distributes the milk coming from outside among all the societies selling milk in Geneva. The distribution is made to the four recognized societies on the basis of the amount of milk each has furnished in the previous year. The expenses of the office are borne equally by the four dairy organizations (United Dairies of Geneva, Co-operative Society, Dairy Union and Model Dairy) proportionately to the

amount of milk they have received. The milk the office receives from outside is considerable in amount. The Nestlé firm alone sent seven million litres to Geneva in 1917, and the combined producers' federations of Vaud and Fribourg an equal quantity.

As regards the regulation of the butter trade, there is on the federal side the *Federal Butter Office*, a branch of the milk office. This has formed the cantonal butter centres. In Geneva it appointed the United Dairies of Geneva as centre. The existence of a centre has allowed the trade to be regulated, uniform prices to be fixed, and a better distribution among consumers to be secured.

As regards the trade in cheese, the monopoly thereof has been granted to the Swiss Union of Exporters of Cheese which has its headquarters at Berne. The cheesemaking is entirely controlled by this union. The makers can dispose of only 10 per cent. of their product to meet the needs of their own localities.

Since the district of Geneva is far from being able to supply the 70,000 litres of milk which it needs every day, it now receives some 50,000 litres through the Central Office. As regards butter and cheese Geneva is entirely a tributary of the rest of Switzerland. The individual action of the dairies forming the United Dairies of Geneva can no longer be felt except through the presence of their delegates at the meetings of the Central Union where the prices for each season are discussed.

The United Dairies of Geneva have followed the policy of keeping up the level of produce contributed by obtaining that the authorities fix prices which encourage agriculturists to produce butter. During 1917 the members delivered 5,815,650 litres of milk for 1,634,524 francs. From persons not members 7,205,685 litres were received for 1,958,607 francs; and thus the total of 13,021,336 litres for 3,593,131 francs was reached.

The loss through keeping was one of 7 per cent., and 12,924,000 litres were sold as whole milk or after conversion for 4,061,018 francs.

The average daily amount was 31,927 litres in 1916 and 35,708 litres in 1917; the increase being thus one of 3,781 litres a day. However, as the following table shows, there has been a constant fall in the production of members since 1913:

Year	Amount sold or converted daily	Daily production of members
1913	27,174 litres	23,193 litres
1914	26,970 "	22,007 "
1915	28,804 "	20,675 "
1916	31,927 "	20,648 "
1917	38,708 "	15,933 "

Of the amount sold in 1917, 19,775 litres were daily bought from producers outside the society, which thus runs the risk of gradually losing its co-operative character.

The average selling prices have been as follows :

in 1914	0.2042 franc the litre
» 1915	0.2252 » » »
» 1916	0.2524 » » »
» 1917	0.3111 » » »

The average purchase price has been 0.275 franc the litre, and general costs have amounted to 0.035 franc the litre. The members received 0.2475 franc a litre for their milk in each of the four first months of the year, plus one centime for milk sold in the villages ; 0.29 franc from 1 May to 31 October ; and 0.301 franc in November and December.

During the year 6029 cheeses were made and bought, that is 209,133 kilogrammes of cheese, worth 543,050.75 francs. In 1914 the amount of cheese sold was more than 300,000 kilogrammes. For the year from 1 August 1917 to 31 July 1918 the society is limited to 138,000 kilogrammes. The manufacture of soft cheeses has had to be suspended.

132,165 kilogrammes of butter were made and bought.

The memberships is 933 and includes four individuals, the Collective Cow-Byre of Satigny and the members of 48 local societies. Altogether the members own 3421 cows. Since the United Dairies of Geneva have been formed these figures have varied as follows :

Year	Members	Cows	Production (in litres)
1911	792	3,441	7,931,188
1912	832	3,567	7,733,405
1913	867	3,797	8,467,575
1914	846	3,720	8,032,565
1915	836	3,650	7,546,313
1916	933	3,699	7,536 575
1917	933	3,421	5,915,650

The diminution of 278 in the number of cows between 1916 and 1917 corresponds to a fall of 1,720,925 litres in production. The sales in village dairies are not covered by the figures as to production.

We should note that, according to the evidence provided by the sampling which has taken place in the country, the number of members producing milk is less than the 933 indicated above, being in fact only 814, of whom :

436 possess	1 or 2 cows
227 »	3 to 5 »
92 »	6 to 10 »
41 »	11 to 15 »
18 »	16 or more »



2. AGRICULTURAL CO-OPERATIVE SOCIETIES FOR THE CULTIVATION OF GRAIN
— *L'Agricoltore ticinese*, 1918, No. 1.

• Co-operative societies for the cultivation of cereals are beginning to be founded in Switzerland.

The impulse was given by the recent order of the Federal Council that cereals should be grown on an additional 50,000 hectares. This area has been divided among the cantons and through them among the communes.

Thirteen hectares were assigned as the share of the commune of Rohschacherberg in the canton of St. Gall. The cultivators met together and decided that as the land of the commune was much broken up by natural features and exclusively occupied by gardens and market-gardens, it was not adapted to the cultivation of cereals. They therefore resolved to form an Agricultural Co-operative Society for Growing Cereals and sought for a piece of land outside the commune suited to their purpose. They found in the canton of Thurgovia 40 hectares, capable of supporting 45 heads of cattle, two goats, twelve pigs, etc. They bought it and on the 1st of November the former owner became the lessee thereof. In accordance with an agreement with the civil and military authorities it was decided that the new cultivated area should form part not of the quota of additional cultivated land due from Thurgovia but of that due from St. Gall that it should, in fact, represent the quota due from the commune of Rohschacherberg. Thus another rural holding passed from individual ownership to the collective ownership of a commune.

This solution certainly presents many advantages. It prevents soil, unadapted to growing cereals and producing other crops better, from being violently put to an unfit use, and it allows the most suitable lands of a district to be chosen for the cultivation of grain. Collective action has shown itself able to solve problems of which the solution at first seemed difficult or impossible.

This is not the first example of a co-operative society of this kind in Switzerland.

In St. Gall there is the co-operative society called *Cerere* which cultivates land in the Rhine valley. The Confederation, the cantons of Eastern Switzerland, the towns, the Swiss Union and other bodies take part in it.

In Zurich the co-operative society *Flora* occupies itself especially with horticulture, as does the Swiss Union of Producers of Fruit and Vegetables which has also undertaken the rational victualling of towns.

The Swiss Union of Co-operative Consumers' Societies at Basle has voted the sum of 350,000 francs to the acquisition of holdings to be co-operatively cultivated.

In the canton of Vaud an association like that at Zurich was recently formed. It is known as *La Charme* and the Confederation, the canton, some communes and certain other bodies take part in it.

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3. THE ZURICH CO-OPERATIVE MILL, IN 1917. — *La Coopération*, Basle, 8 March 1918.

This mill, which is the collective property of the Swiss Union of Consumers' Societies and of various co-operative consumers' societies, regularly receives necessary grain from the Confederation, grinds it according to federal rules, and transmits the product to the adherent co-operative societies and some centres of population at prices fixed by the government. It remits the cost of transport to those it serves if such cost be less than 80 centimes per 100 kilogrammes, and remits 80 centimes per 100 kilogrammes if the cost of transport exceeds this rate.

The number of adherent societies has passed from 165 to 188. The output brought in more than 12 million francs in 1917. Working costs were 392,000 francs; and interest at the rate of 5 per cent., paid on the borrowed capital of 35,200 francs and the share capital supplied by the co-operative society, amounted to 32,500 francs. There was a net credit balance of 152,000 francs. Sales of the value of 100 francs therefore comprised 95 francs' worth of primary material and 3.80 francs as costs of grinding, sale, despatch and transport, leaving a credit balance of 1.20 francs.

The entire balance is paid into redemption and reserve funds.

This financial policy has enabled this co-operative mill, which at first possessed nothing, to accumulate in only five years reserve and redemption funds amounting to 840,000 francs; and they constitute a collective capital additional to the share capital of 698,000 francs paid by its customer-owners. These two capitals represent together, the balance-sheet having been adopted, 70 per cent. of the value of the fixed capital (land, buildings, furniture, industrial plant, etc.). On the other hand the remainder of the fixed capital and the whole circulating capital (merchandise, advances to the Confederation, securities, money in the bank), amounting to a million francs, has been borrowed from the Swiss Union of Consumers' Societies. The situation of the society is good and it improves from year to year.

UNITED STATES.

THE NATIONAL MILK PRODUCERS' FEDERATION. — *The American Economic Review*, Vol. VII, No. 4, Princeton (New Jersey), December 1917.

The National Milk Producers' Federation was organized and incorporated at Chicago in December 1916 and promises much for the whole milk industry. Its purposes are: an investigation of the conditions, including contracts, under which milk is sold by farmers and wholesalers; the dissemination of information as to prices, markets and grades to members of the federation and producers; the introduction of legislation as to grades and standards; the organization of milk producers' associations; and, in general, the protection of the milk industry. The membership includes or-

ganizations of milk producers, particularly those selling whole milk. At present it comprises the milk producers' associations of Chicago, Twin City, Milwaukee, St. Louis, Cincinnati, Michigan and North Ohio, the Dairy-men's League of New York, the New England Milk Producers' Association which covers the six New England States, the Tri-State Milk Producers' Association which covers New Jersey, Pennsylvania and Maryland, and a few smaller organizations.

The federation met in Washington on 10 October 1917 to perfect its organization, and to discuss with the Federal Food Administrator the problem of milk prices and contracts and with the Department of Justice the legal status of farmers' associations dealing with the sale of milk.

For the future the federation will maintain in Washington a representative who will devote himself to the interests of dairy-farming associations, especially in so far as the marketing of the whole milk is concerned.

Part II: Insurance and Thrift

GERMANY.

THE DEVELOPMENT OF INSURANCE AGAINST HAIL, (*Continued*).

SOURCE:

ROHRBECK (Dr. jur., Dr. phil., W.) [of Cologne]: *Die deutsche Hagelversicherung in Wirtschaft und Recht Versicherung*, supplement to *Mitteilungen für die öffentlichen Feuerversicherungs Anstalten*, published by the *Verband öffentlicher Feuerversicherungsanstalten in Deutschland*, 49th year; new series. 6th year, Nos. 1 and 2, 87 pp. Kiel, February 1917.

§ 10. THE STOCK COMPANIES.

In the preceding paragraphs we saw what place companies have occupied among agencies insuring against hail in Germany when by comparative tables we briefly showed the results obtained in 1914 and 1915 and gave at the same time the total figure for the period from 1881 to 1915. Before we examine in this connection points of detail we will repeat certain figures. In the whole period from 1881 to 1915 the companies undertook 35.2 per cent. of the insurance against hail in Germany. In 1914 and 1915 this percentage became 24.6 per cent. and 23.8 per cent. Thus they both have been and still are important, and they render considerable service to the cause of thrift.

From 1905 to 1915 their share capital underwent the following changes :

Year	Unpaid-up Capital Shares	Reserve	Capital Shares total
—	— marks	— marks	— marks
1905	21,622,800	4,774,818	28,528,500
1906	22,122,800	4,631,599	28,528,500
1907	21,022,800	4,644,815	28,528,500
1908	18,022,800	4,553,130	28,528,500
1909	18,022,800	3,591,126	28,528,500
1910	18,022,800	4,914,868	28,528,500
1911	18,022,800	6,646,569	28,528,500
1912	18,922,800	8,175,256	25,528,500
1913	20,122,800	10,780,460	25,528,500
1914	19,620,900	12,454,942	25,528,500
1915	19,620,900	14,724,501	25,528,500

From 1905 to 1915 the total progress of these companies was satisfactory as regards their share capital. During these years it had to be recognized that there was little necessity for calls for capital, since the unpaid-up share capital diminished by only two million marks in round figures, while the nominal capital diminished by three million marks and the reserves increased by ten million marks.

In the same period the figures representing *profit and loss* were as follows :

Year —	Profits of the year — marks	Losses of the year — marks	Profits + Losses — Balance — marks
1905		4,517,808	— 4,517,808
1906		1,129,900	— 1,833,214
1907		826,938	— 3,492,553
1908		3,520,236	— 7,215,225
1909	6,294,942		— 109,894
1910	282,344		— 2,259,982
1911	5,241,087		+ 2,495,877
1912	3,450,016		+ 3,065,743
1913	5,617,679		+ 5,617,679
1914	4,474,878		+ 4,474,878
1915	5,979,919		+ 5,979,919

From 1905 to 1908 there were bad years, and the position regained its equilibrium only with the balance-sheet of 1911. The gains then compensated for the earlier losses, and the balance was once more on the credit side. It was, as we shall presently see, precisely in 1912 that one only of these companies went into liquidation. This was the least important of five stock companies which undertook insurance against hail in Germany before 1912. The liquidation is accountable for the decrease of three million marks which then occurred in the total nominal share capital of this group of companies, comprising at the time the *Berliner Hagel Assecuranz-Gesellschaft*, the *Kölnische Hagel-Versicherungs-Gesellschaft*, the *Magdeburger Hagel-Versicherungs-Gesellschaft*, the *Union*, the *Allgemeine Deutsche Hagel-Versicherungs-Gesellschaft* and the *Vaterländische Hagel-Versicherungs-Gesellschaft*. The last named was the company liquidated in 1912.

The following tables show the extent to which the individual position of several companies is responsible for the total figures :

Year	Unpaid-up Share Capital — marks	Nominal Share Capital — marks	Gains + Losses — — marks
<i>1. Berliner Hagel-Assecuranz-Gesellschaft.</i>			
1905	2,400,000	3,000,000	— 293,597
1906	2,400,000	3,000,000	+ 63,216
1907	2,400,000	3,000,000	— 113,228
1908	2,400,000	3,000,000	— 33,451
1909	2,400,000	3,000,000	+ 839,373
1910	2,400,000	3,000,000	+ 299,264
1911	2,400,000	3,000,000	+ 907,330
1912	2,400,000	3,000,000	+ 829,446
1913	2,400,000	3,000,000	+ 1,189,956
1914	2,400,000	3,000,000	+ 1,000,071
1915	2,400,000	3,000,000	+ 1,085,609

2. Kölnische Hagel-Versicherungs-Gesellschaft.

1905	7,200,000	9,000,000	— 1,991,908
1906	7,200,000	9,000,000	— 560,211
1907	7,200,000	9,000,000	— 368,597
1908	6,000,000	9,000,000	— 1,048,909
1909	6,000,000	9,000,000	+ 1,261,074
1910	6,000,000	9,000,000	— 383,683
1911	6,000,000	9,000,000	+ 1,192,826
1912	6,000,000	9,000,000	+ 818,218
1913	7,200,000	9,000,000	+ 1,551,680
1914	7,200,000	9,000,000	+ 1,112,225
1915	7,200,000	9,000,000	+ 1,605,464

3. Magdeburger Hagel-Versicherungs-Gesellschaft.

1905	4,000,000	6,000,000	— 840,000
1906	4,500,000	6,000,000	— 1,100,000
1907	3,400,000	6,000,000	— 505,788
1908	2,000,000	6,000,000	— 1,099,529
1909	2,000,000	6,000,000	+ 1,715,133
1910	2,000,000	6,000,000	— 177,955
1911	2,000,000	6,000,000	+ 1,500,374
1912	4,500,000	6,000,000	+ 450,191
1913	4,500,000	6,000,000	+ 922,671
1914	4,500,000	6,000,000	+ 701,242
1915	4,500,000	6,000,000	+ 1,001,552

Year	Unpaid-up Share Capital — marks	Nominal Share Capital — marks	Gains + Losses — — marks
4. <i>Union, Allgemeine Deutsche Hagel-Versicherungs-Gesellschaft.</i>			
1905	6,022,800	7,528,500	— 866,513
1906	6,022,800	7,528,500	+ 669,185
1907	6,022,800	7,528,500	+ 315,663
1908	6,022,800	7,528,500	— 776,937
1909	6,022,800	7,528,500	+ 1,593,088
1910	6,022,800	7,528,500	+ 305,269
1911	6,022,800	7,528,500	+ 1,640,557
1912	6,022,800	7,528,500	+ 1,352,161
1913	6,022,800	7,528,500	+ 1,953,372
1914	5,520,900	7,528,500	+ 1,634,340
1915	5,520,900	7,528,500	+ 2,287,294

5. *Vaterländische Hagel-Versicherungs-Gesellschaft.*

1905	2,000,000	3,000,000	— 525,790
1906	2,000,000	3,000,000	— 202,090
1907	2,000,000	3,000,000	— 154,988
1908	1,600,000	3,000,000	— 561,410
1909	1,600,000	3,000,000	+ 886,274
1910	1,600,000	3,000,000	+ 239,449
1911	1,600,000	3,000,000	(1)

From 1910 onwards these companies undertook reinsurance business, and, as our figures which refer to the years up to 1912 show, the difference between the business offered them and that which they accepted shows that they might perhaps find here a new and interesting means of strengthening their position.

Year	Insured Sums ac- cepted for reinsurance — marks	Premiums received — marks	% of insured sums —
1910	70,033,000	840,346	1.20
1911	66,388,000	649,012	0.99
1912	127,983,000	1,288,640	1.01

Year	Insured sums offered for reinsurance — marks	Premiums paid — marks	% of insured sums —
1910	60,290,000	641,536	1.20
1911	56,889,000	629,857	1.10
1912	117,067,000	1,322,046	1.11

The year 1914 shows a real progress in this direction which would be more considerable if the difference between premiums received and premiums paid were that apparently indicated by the progressive increase in the amount of the sums insured. This fact would be one interesting to study in its development, were it not unfortunately precisely the data for the following years which are lacking.

We will now pass to an examination of costs of administration, taxes, dividends, the price of shares and investments, all of which are very important if we wish to have as complete an idea as possible of the companies undertaking insurance against hail. In some respects the data furnished by Dr. Rohrbeck do not apply to the period before 1911 which included particularly bad years. The figures we have bear only on the period from 1911 to 1915, at least as far as costs of administration and taxes are concerned. During these five years total costs reached the following amounts :

Year —	Commissions — marks	Other costs of administration — marks	Total amount of commissions and other costs — marks	Taxes — marks
1911 . .	992,719	838,179	1,830,898	84,375
1912 . .	945,633	824,469	1,870,102	225,538
1913 . .	972,608	830,785	1,803,393	266,083
1914 . .	929,141	777,819	1,706,960	369,161
1915 . .	1,020,594	728,674	1,749,268	540,233

These several amounts were distributed among four societies, for, as we have seen, one society went into liquidation in 1912.

Year —	Commissions — marks	Other costs of administration — marks	Total amount of commissions and other costs — marks	Taxes — marks
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1. *Berliner Hagelassecuranz-Gesellschaft.*

1911 . .	145,078	153,653	298,731	29,956
1912 . .	172,941	153,441	326,382	55,491
1913 . .	171,929	142,677	314,606	100,695
1914 . .	163,720	123,725	287,445	103,430
1915 . .	166,511	125,179	291,690	146,285

Year —	Commissions — marks	Other costs of administration — marks	Total amount of commissions and other costs — marks	Taxes — marks
<i>2. Kölnische Hagel-Versicherungs-Gesellschaft.</i>				
1911 . .	214,835	209,512	424,347	11,349
1912 . .	214,999	180,006	395,005	21,958
1913 . .	236,778	170,323	407,101	29,421
1914 . .	229,855	175,049	404,904	53,911
1915 . .	243,756	157,494	401,250	82,167

3. Magdeburger Hagel-Versicherungs-Gesellschaft.

1911 . .	415,355	289,167	704,522	10,085
1912 . .	330,867	313,810	644,677	54,694
1913 . .	342,127	328,876	671,003	35,077
1914 . .	319,360	288,071	607,431	84,825
1915 . .	376,586	256,105	632,691	106,038

4. Union, Allgemeine Deutsche Hagel-Versicherungs-Gesellschaft.

1911 . .	217,451	185,847	403,298	32,985
1912 . .	226,826	177,212	404,038	93,395
1913 . .	221,774	188,909	410,683	100,890
1914 . .	216,206	190,974	407,180	126,995
1915 . .	233,741	189,896	423,637	205,743

During these five years, as appears as much from the total as from the detailed figures, the amount of commissions and other costs of administration remained within normal limits. There are no fluctuations to record, saving a slight decrease if we take the two items mentioned together, when we find that although the *Union* shows an increase of about 5 per cent. on the figure for 1911, the decrease incurred by the three other societies appreciably lowers the total figure, which passed from 1,880,898 marks in 1911 to 1,740,268 marks in 1915, having thus lessened by about 4.5 per cent.

The case is different where the amount of the taxes, which almost trebled between 1911 and 1912, is concerned. The increase was moreover sustained until 1915, for between 1912 and 1915 this item was almost doubled. The item is therefore one which in four years was multiplied, for the various societies, by six, seven or even ten. The important fact is that the beginning of this increase in the taxes paid by stock companies insuring against hail coincided with the return of years showing a credit balance.

Our data as to dividends for the whole period from 1900 to 1915 concern also the fifth of these companies. They are as follows:

Year	Berliner Hagel- Assecuranz	Kölnische Hagel- Versicherungs Gesellschaft	Magdeburger Hagel- Versicherungs Gesellschaft	Union	Vaterländische Hagel-Ver- sicherungs Gesellschaft
1900 . . .	5	2 $\frac{1}{2}$	8 $\frac{1}{2}$	20	5 $\frac{1}{2}$
1901 . . .	4 $\frac{1}{2}$	6 $\frac{2}{3}$	14	20	9 $\frac{1}{2}$
1902 . . .	6	1 $\frac{2}{3}$	5	16 $\frac{2}{3}$	—
1903 . . .	16 $\frac{2}{3}$	13 $\frac{1}{3}$	15	35	—
1904 . . .	16	15	10	23 $\frac{1}{3}$	15
1905 . . .	—	—	—	10	—
1906 . . .	6	—	—	25	—
1907 . . .	—	—	—	16 $\frac{2}{3}$	—
1908 . . .	—	—	—	10	—
1909 . . .	45	—	—	35	—
1910 . . .	20	—	—	15	—
1911 . . .	40	—	6 $\frac{2}{3}$	46 $\frac{1}{3}$	—
1912 . . .	37 $\frac{1}{2}$	5	8	46 $\frac{1}{3}$	—
1913 . . .	45	20	14 $\frac{2}{3}$	58 $\frac{1}{3}$	—
1914 . . .	25	20	14 $\frac{2}{3}$	43 $\frac{3}{4}$	—
1915 . . .	25	30	18 $\frac{2}{3}$	46 $\frac{1}{4}$	—

The critical period already noticed, which is accurately reflected in the preceding data, can also be traced, with sufficient clearness, in the data as to the price of the companies' shares on Berlin stock exchange from 1900 to 1913.

Year	Berliner Hagel- Assecuranz	Kölnische Hagel- Versicherungs Gesellschaft	Magdeburger Hagel- Versicherungs Gesellschaft	Union	Vaterländische Hagel-Ver- sicherungs Gesellschaft
1900 . . .	305	400	600	885	450
1901 . . .	300	410	660	810	650
1902 . . .	325	360	580	860	600
1903 . . .	640	450	650	975	605
1904 . . .	710	490	720	1,005	750
1905 . . .	640	260	390	820	350
1906 . . .	465	—	25	880	160
1907 . . .	405	220	—	800	?
1908 . . .	400	—	115	730	?
1909 . . .	800	697	440	920	425
1910 . . .	715	225	350	830	510
1911 . . .	1,250	395	800	1,140	—
1912 . . .	1,300	465	308	1,050	—
1913 . . .	1,300	416	410	1,320	—

These companies invest their capital variously. They hold property in land, mortgages and securities; they make loans on securities and they discount. These various investments were distributed as follows in 1910-1911 and 1912.

Year	Total amount of investments marks	Property in land marks	Mortgages and mortgage securities marks	Other securities marks	Loans on securities marks	Discount business marks
1910	10,981,264	308,600	2,065,622	8,013,707	200,000	333,335
1911	12,991,354	308,600	3,262,622	9,056,398	200,000	463,734
1912	12,759,804	308,600	1,516,622	10,183,291	200,000	551,291

Investments of these various categories were therefore made in the following proportions :

Year	Property in land %	Mortgages and mortgage securities %	Other securities %	Loans on securities %	Discount business %
1910	2.8	18.8	73.5	1.8	3.1
1911	2.3	24.6	68.1	1.5	3.5
1912	2.4	11.9	79.8	1.6	4.3

If losses on the stock exchange or due to other causes be taken into account, the profits constituted by interest, dues and the gains made on the stock exchange provided, under the head of these investments, 602,624 marks in 1910 ; 735,153 marks in 1911 ; and 628,306 marks in 1912.

§ II. MUTUAL SOCIETIES.

From 1881 to 1915 the territorial mutual societies used their premiums of various sorts to cover the sums they insured in the following proportions :

Premiums	Amount of premiums marks	% of total premiums —	Sums insured marks	% of sums insured —
Initial and additional premiums	485,328,383	87.5	42,906,527,040	1.13
Premiums distributed.	70,994,365	12.5	6,275,936,531	1.13

Out of the above sum of 485,328,383 marks premiums alone represent 62.5 per cent., that is 0.7 per cent. of the sums insured. Costs represent 37.5 per cent., that is 0.42 per cent. of the sums insured.

These territorial mutual societies have also undertaken reinsurance business, but only in so far as the sums they have in hand and their credit compensate each other. This is shown by the following data :

Year	Accepted for reinsurance — marks	Offered for reinsurance — marks	Part reinsured — marks	% of sums insured —
1910 . . .	11,468,000	11,469,000	83,333	0.72
1911 . . .	10,185,000	10,185,000	72,228	0.71
1912 . . .	16,940,000	16,981,000	113,986	0.67

The societies in question have other sources of revenue — payments intended for the reserve funds, sums received for the insurance policies and the costs of administration. Additional sums swell the amount of premiums, and sums have been detained which come under the head of indemnities.

The following are the primary elements which constitute these supplementary receipts :

Year	Amount for reserves — marks	Detained from indemnities — marks	Sums received for costs of administra- tion and policies — marks	Total — marks
1911 . . .	1,717,539	661,734	299,216	2,678,489
1912 . . .	1,732,099	1,314,708	273,784	3,319,591
1913 . . .	1,877,389	868,968	272,822	3,019,679
1914 . . .	1,772,844	1,217,677	259,960	3,250,481
1915 . . .	1,979,767	819,461	326,191	3,125,419

Of the territorial mutual societies the large number follow a mixed method as regards premiums. The premium comprises an initial instalment to which is joined a varying instalment for which a call can be made when fixed receipts are insufficient. Receipts under the head of premiums are distributed as follows among societies of the two groups :

Year	Societies receiving initial and additional premiums — marks	% of premiums —	Societies having distributed premiums — marks	% of premiums —
1911 . . .	2,542,492	16.9	135,997	4.5
1912 . . .	3,136,005	13.8	183,586	4.2
1913 . . .	2,772,574	15.4	247,105	7.3
1914 . . .	3,115,808	13.1	134,673	3.6
1915 . . .	3,020,959	19.0	104,460	2.9

In the period from 1886 to 1915 receipts of this category in societies of this group amounted to 46,239,141 marks. This gives for the thirty years an average of 1,541,304 marks a year. If we remember that for the five years already considered, 1911 to 1915, this item stood at 15,393,659 marks, which gives a yearly average of 3,078,732 marks, we have a very significant indication of the progress these societies have realized which during this study we have already noted several times. We must not however forget that this last period of five years witnessed a very marked revival which followed on the sufficiently prolonged period of crisis also noticed in connection with the stock companies.

As regards the dividends accruing to holders of policies we have data for

only one society, the *Deutsche Hagelversicherungsgesellschaft für Gartnereien*. They are as follows :

Year	Amount of dividends — marks	% of premiums —
1911	52,229	15
1912	—	—
1913	69,356	17 ½
1914	52,802	12
1915	118,102	30

The premiums paid by these societies from 1881 to 1915, costs of valuations being excluded, are distributed as follows.

	Amount — marks	% of total premiums —	% insured sums —
Societies having initial and additional premiums	426,957,284	86.1	1.00
Societies having distributory premiums	68,908,785	13.9	1.09

The costs of administration of the territorial mutual societies for the period from 1881 to 1915 are distributed as follows according to the two kinds of premiums considered :

	Amount — marks	% insured sums —
System of initial and additional premiums . .	85,104,127	0.20
» » distributed premiums	4,174,344	0.07

This total amount of 89,278,471 marks, which has to be distributed over a period of thirty-five years, gives a yearly average of 2,550,813 marks, a figure which allows the rate at which costs of administration have increased in recent years to be perceived. For this purpose we will take, as we have already done for other purposes, the period from 1911 to 1915, and will take into account the part of these costs which concerns insurance agents :

System of initial and additional premiums			System of distributed premiums			Total costs		Total	
Agents	Other costs	Total	Agents	Other costs	Total	Agents	Other costs of admini- stration	for the two categories	
marks	marks*	marks	marks	marks	marks	marks	marks	marks	
1911 .	1,796,594	1,289,112	3,085,706	32,904	117,914	150,818	1,829,498	1,407,026	3,236,524
1912 .	1,987,272	1,321,322	3,309,594	35,885	133,904	169,789	2,023,157	1,455,221	3,479,383
1913 .	2,018,709	1,386,107	3,404,816	39,044	134,926	173,970	2,057,753	1,521,033	3,578,786
1914 .	2,145,839	1,337,651	3,483,490	36,946	134,555	171,501	2,182,783	1,472,206	3,654,991
1915 .	2,342,400	1,242,897	3,585,297	37,088	128,386	165,474	2,379,488	1,371,283	3,750,771

If we separate from these total sums those belonging to each of the ten territorial mutual societies, we obtain the following data which are the more interesting because they specify the amount of the taxes paid by the societies from 1911 to 1915 :

I. SOCIETIES HAVING INITIAL AND ADDITIONAL PREMIUMS.

1. *Borussia.*

Year	Agents marks	Other costs of administration marks	Taxes marks
1911	167,602	146,914	1,556
1912	182,234	155,145	1,006
1913	184,575	163,418	2,951
1914	181,601	151,700	3,425
1915	179,619	129,331	3,201

2. *Ceres.*

1911	177,075	167,025	2,961
1912	225,914	173,080	3,877
1913	213,993	162,816	6,271
1914	226,725	148,745	7,788
1915	234,191	140,047	6,413

3. *Deutsche Hagel-Versicherungsgesellschaft für Gartnereien.*

1911	53,955	48,255	260
1912	60,062	49,701	1,335
1913	55,690	50,289	1,367
1914	67,773	51,639	5,790
1915	58,234	46,647	4,577

4. *Gesellschaft zu gegenseitiger Hagelschaden Vergütung*

1911	136,647	182,762	1,202
1912	163,447	200,333	1,817
1913	166,216	221,869	3,426
1914	169,238	218,804	4,274
1915	181,798	198,000	4,258

5. *Norddeutsche Hagel-Versicherungs-Gesellschaft.*

1911	1,017,497	561,022	4,802
1912	1,099,788	553,168	9,505
1913	1,147,168	592,894	21,631
1914	1,250,054	581,892	15,506
1915	1,388,370	550,889	12,348

Year	Agents — marks	Other costs of administration — marks	Taxes — marks
6. <i>Preussische Hagel-Versicherungs-Gesellschaft.</i>			
1911	57,370	118,851	943
1912	57,336	117,809	1,271
1913	53,808	117,284	2,389
1914	55,955	110,238	2,981
1915	57,285	105,893	2,844

7. *Schwedter Hagel-Versicherungs-Gesellschaft.*

1911	186,448	64,283	700
1912	198,491	72,086	2,070
1913	197,259	77,537	5,150
1914	194,493	74,633	2,525
1915	242,903	71,290	2,238

II. SOCIETIES HAVING DISTRIBUTORY PREMIUMS.

1. *Greifswalder Hagel-Versicherungs-Gesellschaft.*

1911	—	22,649	4,303
1912	—	29,615	3,570
1913	—	31,616	4,333
1914	—	35,716	1,541
1915	—	27,743	871

2. *Mecklenburgische Hagel-Versicherungs-Gesellschaft.*

1911	32,904	24,611	259
1912	35,885	26,577	416
1913	39,044	26,319	770
1914	36,946	28,918	1,100
1915	37,088	28,483	1,919

3. *Ostdeutscher Hagelversicherungsverband.*

1911	—	70,654	
1912	—	77,712	
1913	—	76,991	
1914	—	69,921	
1915	—	72,160	

We might here almost repeat the remarks we made as to the costs borne by the stock companies. A difference would have to be noted only on one point, the fact that the taxes, after having maintained a high rate of increase

up to and in 1914, were subject in the following year to a fall which was almost general among these mutual societies. This again is a phenomenon which should be closely observed as soon as new data make observation possible.

In the period from 1881 to 1915 the reserves for the two groups of societies were as follows :

	marks	% of insured sums
System of initial and additional premiums .	92,415,355	0.22
» » distributed premiums	34,072,950	0.54

This gives a total of 126,488,305 marks or an average of 3,513,564 marks a year. This average figure will allow us to see what progress this group of societies has made in this respect. The following figures refer to the last five years examined, that is 1912 to 1916 for the reserves and 1911 to 1915 for the surplus and deficit of each year.

Year	Surplus and deficit of the year		Reserves on 1 January of the following year		
	System of initial and additional premiums	System of distributed premiums	System of initial and additional premiums	System of distributed premiums	Total for the two systems
—	marks	marks	marks	marks	marks
1911	— 676,168	+ 102,972	4,426,494	2,004,300	6,430,794
1912	— 4,138,157	— 77,567	4,187,098	2,104,316	6,291,414
1913	— 549,734	— 133,603	6,616,471	2,581,805	9,198,276
1914	— 3,081,109	— 461,529	7,472,075	2,441,167	9,913,242
1915	— 762,026	+ 63,769	8,576,081	2,888,361	11,464,442

The extent to which the various societies are responsible for these figures is as follows :

I. SOCIETIES HAVING INITIAL AND ADDITIONAL PREMIUMS.

Year	Surplus and deficit of the year	Reserves on 1 January of the succeeding year
—	marks	marks

1. *Borussia.*

1911	— 96,963	271,051
1912	— 143,065	288,993
1913	— 104,954	338,626
1914	— 188,744	323,986
1915	— 106,676	374,761

2. *Ceres.*

1911	— 187,358	182,660
1912	— 17,964	305,182
1913	— 87,296	365,473
1914	— 109,096	426,686
1915	— 78,925	496,678

Year	Surplus and deficit of the year	Reserves on 1 January of the succeeding year
—	marks	marks

3. *Deutsche Hagelversicherungs-Gesellschaft für Gartnereien.*

1911	+ 156,688	86,185
1912	— 26,977	163,667
1913	+ 208,068	302,379
1914	+ 105,603	355,181
1915	+ 236,204	355,181

4. *Gesellschaft zu gegenseitiger Hagelschaden-vergütung.*

1911	— 45,390	286,009
1912	— 86,728	386,540
1913	— 65,814	538,116
1914	— 65,351	682,541
1915	— 183,225	709,806

5. *Norddeutsche Hagel-Versicherungs-Gesellschaft.*

1911	— 420,661	2,713,931
1912	— 3,494,021	2,135,387
1913	— 442,175	3,886,022
1914	— 2,112,293	4,780,523
1915	— 394,320	5,635,870

6. *Preussische Hagel-Versicherungs-Gesellschaft.*

1911	— 62,013	118,973
1912	— 64,307	132,101
1913	— 74,668	122,365
1914	— 6,763	207,963
1915	— 85,844	176,693

7. *Schwedter Hagel-Versicherungs-Gesellschaft.*

1911	— 20,471	767,685
1912	— 305,095	775,228
1913	+ 17,105	1,063,490
1914	— 704,465	695,185
1915	— 149,240	827,092

Years	Surplus and deficit of the year	Reserves on 1 January of the succeeding year
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II. SOCIETIES DISTRIBUTING PREMIUMS.

1. *Greifswalder Hagel-Versicherungs-Gesellschaft.*

1911	— 4,603	872,345
1912	— 12,898	758,097
1913	— 26,083	1,050,100
1914	— 285,619	837,751
1915	— 27,227	955,075

2. *Mecklenburgische Hagel-Versicherungs-Gesellschaft.*

1911	+ 37,712	793,238
1912	— 12,747	935,014
1913	+ 19,930	1,157,534
1914	+ 2,965	1,330,031
1915	+ 3,071	1,501,487

3. *Ostdeutscher Verband.*

1911	+ 69,863	338,717
1912	— 51,927	411,205
1913	— 127,450	374,171
1914	— 178,875	273,385
1915	+ 87,925	431,799

The funds invested by the societies are distributed as follows among the various kinds of investments for the years from 1911 to 1912 :

	Total amount of invest- ments	Mort- gages and mort- gage securi- ties	Pro- perty in land	Loans to public insti- tu- tions	Loans on secu- rities	Secu- rities	Ope- rations of discount	Other in- vest- ments		
	marks	marks	marks	marks	marks	marks	marks	marks		
1910	4,482,062	1,209,094	27.0	107,479	24	15,500	2,672,942	59.6	401,387	75,660
1911	5,221,765	1,245,898	23.9	104,440	15,500	9,000	3,327,410	63.7	443,857	75,660
1912	4,854,714	1,341,950	27.6	101,609	15,500	9,000	2,828,886	58.3	482,709	75,660

Receipts under the head of interest were as follows for these societies from 1911 to 1915 :

Year	Societies having initial and additional premiums	Societies distributing premiums	Total
—	marks	marks	marks
1911	298,786	91,496	390,282
1912	213,189	145,251	358,440
1913	245,154	166,917	412,071
1914	395,299	169,958	565,257
1915	489,059	190,547	679,606

As regards the local mutual societies we have only a few data allowing the years 1914 and 1915 to be compared in point of their costs of administration and reserves. These data are the following :

Year	Costs of administration	Reserve
—	marks	marks
1914	100,000	3,000,000
1915	80,000	3,115,000

But these are no more than round figures.

(To be continued).

Part III: Credit

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES

ARGENTINE REPUBLIC.

THE BUSINESS OF THE FRANCO-ARGENTINE MORTGAGE BANK IN 1917. — Report of the council of administration at the ordinary general meeting of 17 December 1917, in *La Revue Économique et financière*, 38th year, No. 51, 22 December 1917.

The activity of the Franco-Argentine Mortgage Bank in 1917 was profoundly influenced by the general situation of the Argentine Republic which was determined by the war. The difficulties of maritime transport for exporting the products of the country increased during the year. Moreover the grain harvests, on the excellence of which dependence had been placed, were universally disappointing owing to drought and the ravages of locusts, especially the maize harvest which was almost nullified. Exports were consequently even less than in the previous year. In 1915 the Argentine had exported 8,390,000 tons of grain but in 1916 this amount fell to 6,560,000 tons and in the first ten months of 1917 it reached only 1,918,000 tons, as against 5,496,000 tons in the corresponding period of the preceding year.

The scarcity of goods caused on the Argentine markets a rise in sale prices, which however only partially compensated agriculturists for the loss they suffered by the bad harvests. A lack of confidence caused a continued backwardness to invest capital in real estate or commercial enterprise.

The importation of foreign products, principally combustibles, remained very limited, and the world war prevented Argentines from travelling and spending large sums abroad according to their former habit. The commercial balance was therefore again very favourable to the Argentine, and available capital, deposited in the banks, became more and more abundant. The value of imports in 1915 amounted to 227,000,000 dollars of gold, but fell in 1916 to 217,000,000 dollars of gold, and amounted in the first six months of 1917 only to 89,000,000 dollars of gold; whereas the value of exports amounted in 1915 to 558,000,000 dollars of gold, in 1916 to 543,000,000 dollars of gold, and in the first half of 1917 to 305,000,000 gold dollars. The sum deposited in the banks was 687,000,000 gold dollars on

30 June 1916 and 817,000,000 gold dollars on 30 June 1917. Foreign exchange is consequently very favourable to the Argentine, and rate of interest has fallen to an extent which makes that payable on mortgage loans 7 per cent.

For mortgage banks this situation had had the following results: a paralysis of business in real estate, a reduction of the demand for loans, a fall in the rate of interest and consequent numerous repayments. The bank has therefore made no new loans except in special conditions, pending the day when business will resume its normal course.

On 30 June 1917 the *number of bonds*, amortized bonds being deducted, was 475,553 — namely 185,621 at 4 per cent., 240,664 at 4 ½ per cent. and 49,248 at 5 per cent — and they represented a nominal capital of 237,776,500 francs. On 30 June 1916 the *amount of mortgage loans* was 234,756,550 francs. In 1916-1917 the bank had to examine 74 applications for loans for a nominal amount of 39,214,257 francs; and 32 of them, representing 15,293,500 francs, were rejected. Therefore the bank made only 42 new loans for the total sum of 23,920,757 francs. On the other hand it recovered, by repayments of mature loans, anticipated repayments and expropriations, 30,490,750 francs. The amount of current mortgage loans was therefore lessened by 6,569,992 francs, so that its total on 30 June 1917 was 228,186,557 francs. This sum was distributed as follows:

urban loans	15,247,950 francs.
rural loans	212,938,607 francs.

Thus the rural loans represent 93.31 per cent. of the total amount of current loans.

The amount of annual payments due on 30 June 1916 and not then paid was 11,836,777 francs. Since the half-yearly payments falling due in the year lately closed amounted to 19,660,342 francs the total annual payments to be received between 1 July 1916 and 30 July 1917 amounted to 31,497,120 francs. Of this sum 19,112,027 francs were recovered, and therefore on 30 June 1917 the amount of the annual payments due and not made was 12,385,093 francs as against 11,836,771 francs at the same date in the previous year. Assets in real estate amounted to 20,068,723 francs in 1916 and were raised to 24,473,615 francs by expropriations.

Although influenced by unfavourable circumstances the year's business gave a profit, after all charges and the normal amortization of bonds had been deducted, of 8,336,105 francs, which was almost equal to the profit of the previous year. It allowed, among other things, of the distribution of a dividend of 12 per cent. and of the payment into a new "extraordinary reserve" account of a sum of 6,000,000 francs. The company's reserves reached altogether the sum of 22,472,083 francs which represented about 120 per cent. of the paid-up capital.

BRITISH INDIA

THE INDEBTEDNESS OF MEMBERS OF CO-OPERATIVE SOCIETIES IN MYSORE.
CHANDY (K.) in *The Mysore Economic Journal*, Vol III, No 10, October 1917.

In order to get a rough idea as to how far rural indebtedness is being relieved through co-operative societies, the registrar of co-operative societies in Mysore asked each inspector in the department to select for investigation two rural societies in his range which had existed for at least four years and of which one was considered good and the other average.

The resultant survey was not strictly scientific for the inspectors, who were the investigators, are not experts and the cases selected are not numerous enough to allow quite reliable conclusions to be formed. The information collected is however very interesting.

Forty-eight societies, operating over 170 villages, were selected for investigation; and 2,114 cases were investigated altogether. The 170 villages contain 25,316 inhabited houses, and therefore the investigation involved less than 10 per cent. of the heads of families in the selected areas. The membership of the societies in these areas was 2,837. The 723 members which were left out of account did not originally belong to the societies.

The total indebtedness of the members when the societies began work was Rs. 5,54,716, which gives an average of Rs. 260 a member. The present total indebtedness is Rs. 5,55,296. These figures are remarkable for they show that indebtedness has remained practically stationary. Moreover after four years of co-operation the members are indebted to a greater extent to the sowcars than to the societies: roughly, they owe three and half lakhs to the former and only two and a half to the latter. The reason for the continued indebtedness to the sowcars is probably that these lenders allow a longer time for repayment and are more accommodating than a society can be. It behoves societies, therefore, to review every year or at least once in three to five years the economic condition of their members.

It appears to be the case that a fair proportion of the societies' loans have been used for productive purposes: the statistics show that 236 persons have used them to increase their lands and 387 to increase their working capital. It is also found that 892 persons, or 42 per cent., have reduced debts they contracted for unproductive purposes, while the condition of 1,057 persons or 50 per cent. has remained stationary. One hundred and sixty-five persons, or 8 per cent., admitted that their condition has become worse since they became members, generally owing to circumstances beyond their control. Two hundred and three members of the depressed classes have been benefited.

The registrar of co-operative societies in Mysore concludes that the societies "are weighed down by causes due mainly to ignorance. Education is the primary remedy; and as regards lending money, means have to be devised for spreading the repayment over a longer number of years".

The question of investigating the relief of indebtedness was discussed

at the Conference of Co-operators held in Mysore last September, and it was resolved that similar surveys should be conducted at periodic intervals. It is proposed to conduct a more elaborate survey of a larger number of societies during the current year.

MEXICO.

DIVISION OF MORTGAGED LANDS. — *Diario Oficial*, Nos. 106 and 2. Mexico, 29 December 1917 and 3 January 1918.

The law of 14 December 1917 has had force since 1 January 1918. It fixes moratoria for the payment of interest due on bonds of various kinds. Its importance from the agricultural point of view depends on the fact that it solves the question, so much debated in Mexico, as to the divisibility of large properties. Article 11 establishes that if rural estates which are the security for mortgage credit are divided, the payment of interest on that share of the credit which attaches to each of the parcels is also subject to a moratorium. Thus the law clearly solves this question, for it indubitably admits that mortgage credit can be divided. It provides that all credit secured by mortgages on rural property can itself be divided; and that each parcel into which a mortgaged property is divided remains burdened with a part of the credit proportionate to its whole amount, and that such parcel shall therefore be estimated to have a value proportionate to that of the whole mortgaged real estate.

This law, the equitable character of which makes it very important, solves one of the most arduous problems connected with agriculture, especially in Mexico where the indivisibility of lands has always stood more than elsewhere in the way of the development of small properties and therefore of the country's real wealth.

The constitutional revolution had for long proclaimed the division of estates, but this measure was prevented by the indivisible character of the mortgage credit in virtue of which a rural landowner would never have been able to parcel the vast estate he held because he would have been prevented from doing so by the mortgage which burdened it.

The importance of article 11 of the law in question, called the article of the *Pagos*, is even better realized if it be remembered that in Mexico mortgages amount to about 50,000,000 pesos, that about 80 per cent. of the estates are mortgaged, and that therefore the unmortgaged estates which could be divided are few in number.

The necessity for solving this grave problem was so urgent that the government might have been obliged itself to assume the cost of buying estates in order to resell them in small lots and thus to encourage small properties, a course which some States, such as San Luis de Potosí, Michoacán, Vera-Cruz, Tabasco and others, have been obliged to follow.

As regards the landowners, they cannot but profit by this agrarian reform, for if they wish to sell their lands they can do so more easily, the economic conditions of Mexico being as they are, in small lots than individ-

Such sales will not moreover be detrimental to the mortgagees, who will still have the security of mortgages, the only difference being that instead of, for example, one mortgager for 100,000 pesos there will be fifty mortgagers for 2,000 pesos each, the security being provided no longer by one estate but by fifty small holdings.

If it be a consequence of the reform that loans in cash diminish appreciably, the economic and social transformation of Mexico will have largely benefited. Little by little the cleavage between the two classes of which we have spoken will disappear, and a new class of small proprietors will be formed, that is to say a rural population, attached to their small holdings, will be interested in giving the greatest possible impulse to agriculture in order that they may secure for themselves a part of that wealth which the very fertile land of Mexico can produce abundantly as soon as it is cultivated in the new conditions.

UNITED STATES.

THE PLACING OF FEDERAL, FARM LOAN BONDS. *The Economic World*, New York, 12 January 1918.

Both Houses of Congress have passed and the president has approved the Bill, introduced at the instance of the Federal Farm Loan Board, which authorizes the Secretary of the Treasury to purchase farm loan bonds from the Federal Land Banks up to a total amount of \$100,000,000 during the current fiscal year of the government, that is the twelve months ending 30 June 1918.

It is provided in the new law that any Federal Land Bank may at any time repurchase from the Treasury Department any part of the farm loan bonds sold to the latter, whether for purposes of redemption or of resale to investors — the repurchase price to be the par value and the accrued interest.

It is however highly improbable that any farm loan bonds once lodged in the Treasury Department will ever be withdrawn except because they reach the date of their maturity.

Up to 1 November 1917 private investors had purchased about \$21,500,000 of farm loan bonds, which bear interest at the rate of $4\frac{1}{2}$ per cent. and are exempt from all forms of taxation including the Federal income tax. More recently however the market for these bonds among the investing public has ceased to exist, and it has therefore become impossible for the Federal Land Banks, without the financial assistance of the government, to continue to provide money to meet the applications for farm loans of which there have been an ever increasing number.

Part IV: Agricultural Economy in General

GREAT BRITAIN AND IRELAND.

ALLOTMENTS IN ENGLAND WITH SPECIAL REFERENCE TO OXFORDSHIRE.

SOURCE :

ASHEY (Arthur W.) *Allotments and Small Holdings in Oxfordshire*, The Clarendon Press, Oxford, 1917.

An allotment has been defined as " a small piece of land, detached from a cottage, let to a person to be cultivated by him as an aid to his sustenance, but not in substitution for his labour for wages ", in other words to be cultivated " by agricultural labourers and other cottagers at their leisure and after they have performed their ordinary day's work ". The system of granting allotments is a modern recognition of an ancient principle of English law. From the thirteenth century onwards various statutes have been based on the conception that the landless man is a danger to the State. It has been held that property best develops love of locality, community feeling and respect for law and independence. The modern element introduced into this conception is that a man's land may be detached from his dwelling, being thus an allotment in the present sense of the term : until the late eighteenth century an agricultural labourer never had any land except the garden about his cottage.

As regards the economic and political value of allotments, diametrically opposite opinions have been held in modern times. We will here resume the results of experience.

§ I. THE HISTORY OF ALLOTMENTS.

A. Fuel Allotments. — The system of granting allotments began with the vast enclosures of common lands which took place all over England in the latter eighteenth and in the first half of the nineteenth century. The lords of manors procured Act after Act enabling them to enclose as their private property land which previously, as a vestige of the communal basis of the feudal system, had belonged in a more or less defined sense to a community. Among the communal rights most frequently and clearly defined

was that of the villagers to cut turf, peat, furze or wood for fuel on the commons of their villages, and it was often found necessary when enclosing commons to give compensation for this right. Between 1760 and 1801 no less than 1,479 private Acts of Parliament were passed to enclose 2,428,721 acres of land, and many of these Acts, especially those passed after 1790, provided for an allotment to the poor of the parish in lieu of fuel rights. Such allotments were generally made to the lord of the manor or the vicar and churchwardens in trust for the poor of the parish. Where they were not made fuel riots often took place in the winter immediately after an enclosure had been made. An Act passed in 1832 required the trustees to let lands allotted in lieu of fuel rights "to industrious labourers and journeymen of good character".

B. *Poor Allotments*. — In 1819 the policy was initiated of allotting land as a measure of poor relief. The Poor Law of 1601 had made it the duty of the churchwardens and overseers of a parish to set poor people to work. In 1819 an Act authorized the churchwardens and overseers to purchase or hire, with the consent of the inhabitants of the parish, any plot of land up to twenty acres in extent, and to let it to such people as were poor and unemployed. The churchwardens and overseers were also empowered to enclose wasteland, with the consent of the lord of the manor and the majority of the inhabitants, to improve it and to let it to the poor; and in 1832 they were given a similar power to enclose crown lands, and the limit of the land they could hire for enclosure was extended to fifty acres. In 1845 the General Enclosure Act provided that whenever an enclosure was made a plot of land should be granted for "field gardens" for the labouring poor of the parish affected, and that these field gardens should be managed by a body to be styled the Allotment Wardens. The power of appointing the latter and the powers of the trustees and the churchwardens and overseers have now passed to the parish and district councils.

C. *Allotments Provided by Private Action*. — The Poor Law Commission of 1832 collected information on the subject of allotments. They decided :

a) that the amount of land which a labourer can cultivate is usually small, less than half an acre ;

b) that if he pay rent at the rate of £3 an acre he can sometimes obtain a yearly profit of £2.14s by cultivating a quarter of an acre, or £1.4s 6d if his own work be not counted as an item of cost ;

c) that the occupation of land by labourers is beneficial to lessors as well as to labourers ;

d) that the system of letting land by private individuals is beneficial, but the system of letting land by parish officials is rarely successful.

The commissioners added : " Since it appears that land may be let to labourers on profitable terms, the necessity for a public enquiry on these points seems to be at an end. A practice which is beneficial to both parties, and is known to be so, may be left to the care of their own self-interest. The evidence shows that it is rapidly extending, and we have no doubt that as its utility is perceived, it will spread still more rapidly, and that experience

will show, if it has not already shown, on what mutual stipulations it can best be effected".

Thereafter the formation of allotments was left to private enterprise. From 1850 onwards the total area they occupied was considerably extended. Owners of small fields took advantage of the demand and let them in small parcels at increased rents. Some owners of large estates provided field gardens or larger allotments for the labourers. The rents were generally higher by a considerable amount, sometimes by as much as 300 per cent., than the rents of farm land of equal fertility and convenience.

The movement for combination among agricultural labourers in the seventies, known as the Labourers' Union movement, tended to increase the number of allotments. The National Labourers' Union found it difficult to decide whether or not to make a demand for allotments an item of its programme, but such demand was in some cases included in local official programmes, and its inclusion was much favoured by middle-class supporters of the movement.

D. Allotments on Charity Land. — The Labourers' Union brought the condition of agricultural labourers before the attention of the public, and one result of this circumstances was a departure from the policy, enunciated by the Poor Law Commissioners of 1832, of leaving the formation of allotments to private initiative. The Allotments Extension Act of 1882 requires that trustees holding land for the benefit of the poor of a parish, as the result of bequests and gifts by charitable persons, set apart a suitable portion thereof for allotments. On the petition of four labourers eligible for receiving land the Charity Commissioners may enforce this Act. The trustees need not however grant land for allotments if they show that the land they hold is unfit to provide such, or that to divide one portion thereof into allotments will injure the remaining portion.

The passage of this Act was immediately followed by a considerable increase in the area of land available for allotments.

E. Allotments Provided by Public Action. — Since 1887 the system of leaving the provision of allotments to private action has been completely abandoned. Under the Allotment Acts of 1887 and 1890 and the Local Government Act of 1894, it became the duty of urban and rural sanitary authorities to take into consideration any representation as to a demand for allotments made to them in writing by any six parliamentary electors or ratepayers resident in an urban district or a rural parish, whichever of these might be concerned. If the authorities were, after enquiry, of opinion that there was a demand for allotments on the part of the labouring population affected, they might buy or hire land, making a voluntary agreement with the owner, and let it in allotments to such labouring population. After 1894 the parish council could also make representations as to allotments to the district council, and there was a provision for transferring the powers of the latter council, if it failed to act on the representation, to the county council. A district council was allowed to borrow money in order to acquire, improve or adapt land. It was stipulated that no land should

be acquired except at a reasonable rent and on reasonable terms, and that the rents obtained should cover all expenses.

Under the Allotments Act of 1890 a county council was compelled to have a standing committee for allotments, which committee must institute an enquiry if the sanitary authorities failed to obtain land for allotments by voluntary agreements. If such enquiry showed that unreasonable conditions for selling or letting land caused the failure, the county council might exercise certain compulsory powers. If it failed to do so, the parish or district council might apply to the Local Government Board for an order, which did not however become effective until it had been admitted by Parliament.

Under the Local Government Act of 1894 a parish council had power to provide land for allotments if such could be hired by voluntary agreement. When this was impossible the parish council must apply to the county council to make an order which was subject to confirmation by the Local Government Board. Land hired by voluntary agreement could be let in allotments of not more than one acre to one person, land hired compulsorily in allotments of not more than one acre of arable and three acres of pasture land to one person. A tenant might erect a stable, cow-byre or barn on land hired voluntarily but not on land hired compulsorily.

Up to 1908 a district or parish council could, with the consent of the Local Government Board, make general regulations for the use of the allotments it provided. These usually made the four following stipulations:

- 1) That the tenant should keep the allotment free from weeds, manure it and otherwise maintain it in a state of proper cultivation ;
- 2) That he should not plant any trees or shrubs so as to injure any adjacent allotments ;
- 3) That he should keep every hedge forming part of his allotment properly cut and trimmed ;
- 4) That he should not deposit weeds, manure or other obstructive matter on any road or path, or cause any nuisance or annoyance to the holder of any other allotment.

In some cases it has been found necessary by public authorities, allotment societies and landowners to take charge of all fences ; and in such cases the cost of attending to them is apportioned to each tenant in addition to his rent.

The Small Holdings and Allotments Act of 1908 repeals and consolidates the Allotments Acts of 1887 and 1890 and also another Allotments Act of 1907. Under the new Act it remains the duty of local councils, when land can be obtained at a reasonable rent or reasonable conditions, to provide, by voluntary hiring, allotments to be let "to persons belonging to the labouring population in the borough, district or parish who desire to take them." All expenses must be covered by the rent charged. The council may erect and adapt buildings, but must not erect more than one house on each allotment nor any house on less than one acre of land.

A local council may not cede more than five acres of land, in one or several allotments, to any one person without the consent of the county

council, and is not bound to provide more than one acre to one applicant. It may let land to co-operative societies, who alone may sublet allotted land. If a council fail to let all the land it holds as allotments, it may let it otherwise as profitably as possible, reserving the right to retake possession within a twelvemonth. A council may elect Allotment Wardens, to hold office at its pleasure, and delegate powers to them. Existing trustees or Allotment Wardens may transfer their land and powers to a council. Should a local council fail to provide land for allotments the county council may do so.

The Act of 1908 transfers all powers connected with allotments and unconcerned with finance which were previously held by the Local Government Board to the Board of Agriculture and Fisheries, which body may moreover transfer the powers of the councils to the Small Holdings Commissioners in case of necessity.

§ 2. THE CONDITIONS OF ALLOTMENTS

In this paper we will illustrate the facts as to allotments in England by particular reference to the county of Oxford.

The 14,564 allotments in Oxfordshire in 1887 were distributed as follows according to their area :

Area	Number of allotments
—	—
Less than one eighth of an acre	4,450
Between an eighth and a quarter of an acre.	4,774
" a quarter and one acre	4,655
" one and four acres: arable.	609
" " " " " pasture.	64
" " " " " arable and pasture.	12
—	—
	14,564

Thus 9,224 were garden allotments, not more than a quarter of an acre in area ; and 5,340 were field allotments, between one fourth of an acre and five acres in size.

The allotments were distributed in 1914 in groups found in 166 parishes :

99 parishes had 1 group each	99
31 " " 2 groups "	62
14 " " 3 " "	42
5 " " 4 " "	20
17 " " 5 or more "	98
	—
giving a total of	321 groups.

Where there was only one group of allotments in a parish these were almost always garden allotments, and where there was more than one they usually included at least one group of garden allotments.

The garden allotments are thus much better distributed over the county than the field allotments. Usually there are six or eight of them on an acre of land. They are occupied by all classes of workers, both urban and rural.

In Oxfordshire most of the garden allotments are let on a half yearly tenancy, generally concluding at Michaelmas and Lady Day; the field allotments on a yearly tenancy generally concluding at Michaelmas. The rent of garden allotments is paid quarterly almost without exception, the rent of field allotments generally half-yearly but occasionally quarterly.

The rents of field allotments range from 10s. to 45s. per acre a year, the cheaper land often belonging to charities but not infrequently to private owners. The rents of field allotments provided by the parish councils approximate to 30s an acre. Garden allotments in villages are commonly let at the rate of about £3 an acre. The rent is calculated on a pole and is nearly always between 3*d.* and 6*d.* a pole. In the towns these plots are more highly rented: at Bicester one group realizes nearly £9 per acre, at Witney £8; and rents only slightly lower are found near the other centres of population.

The rates of garden allotments are generally paid by the owner, or by the lessor if the latter be an association or a public authority. The tenants of field allotments occasionally pay rates for their individual plots, but it is the general practice for the holder of a group of allotments to pay all rates for it. In the case of field allotments outgoing tenants seldom ask for compensation for improvements but compensation for crops, improvements and sometimes buildings on garden plots is freely demanded and paid.

A. Urban Garden Allotments. — The staple crops of urban garden allotments are potatoes and green crops, the latter varying with the seasons. The skill with which most of the tenants procure a constant supply of vegetables is remarkable. The other crops vary with the needs or desires of the cultivators. Most of these grow flowers, especially roses, hardy perennials, and sweet peas. Quite frequently a small glass house or frame is to be seen on an allotment. Strawberries and other fruit are often found. In a few cases rye and vetches and more rarely lucerne and clover are grown, especially by small tradesmen or private persons who keep a pony. They are sown very early in the autumn and taken off in April, in time to allow potatoes and other crops to be planted although a considerable amount of fodder has been supplied in the spring.

Usually these town allotments are cultivated entirely by hand but sometimes a plough or even a harrow is used. Ploughing generally costs 1s 6*d.* a chain, the minimum for a job being 1s. 6*d.*, and it is done for hire by small hauliers who keep one horse. But the holder of a garden allotment who has ploughing done is rarely a successful or permanent cultivator.

The monetary costs of working a twenty-pole allotment in an urban neighbourhood in Oxfordshire in 1914 were estimated as follows:

	£	s	d		£	s	d
Rent		15	0	to	1	0	0
Manures		15	0		1	0	0
Seeds and plants		10	0			15	0
Tools		2	6	,		2	6
Interest on cost of shed or tool chest		2	6	,		2	6

It is practically impossible to calculate the amount of labour used. No records on this point seem to have been kept by any holder, and any which were available would be of doubtful value for the holders spend much time on their allotments not working but "seeing things grow". Saturday or other holiday afternoons provide the chief gardening time. The cost of fertilizing town allotments appeared in 1914 to be continually increasing, partly because in several towns motors had supplanted horses to such an extent that the supply of manure was much curtailed. Some holders were using fertilizers other than manures, but with little success since they rarely bought them in pure forms.

Most cultivators were unable to estimate the amount and the value of the produce of their allotments; but there was on the other hand a very close agreement between all the estimates which were made. Occupiers of twenty-pole plots who grew on them staple crops stated that their produce was worth from 3s. to 4s. a week all through the year, on the basis of purchase prices in the local shops. Some few sold part of their produce, but few or none cultivated especially for this purpose. If the value of these allotments were calculated on a purely commercial basis the balance would probably be on the debit side: the close attention to the planting and watering of crops, the time spent in tramping to and from the allotment, to say nothing of the primary work and the actual outlay in money, would outweigh the yield.

Urban garden allotments cannot therefore be regarded as making an important addition to labourers' incomes. Many of their holders are indeed not labourers but artisans and small tradesmen. Their chief value is that they provide pleasant and healthful occupation for the cultivators' leisure. Often their holders are country-bred and have the real farmer's instinct. The work tends to arouse intelligence. The produce of the plots contributes directly to the health of the gardeners' families, and sometimes, when flowers are grown, brings beauty into their homes.

B. Rural Garden Allotments. — A rural garden allotment is almost invariably cultivated by hand to produce vegetables for the holder's family. In some of the groups there is a rule against ploughing or growing corn. Sometimes rye, vetches, lucerne and clover are grown, for the same purposes as in towns except that very occasionally they are dug into the soil to serve as manure. The crops depend largely on the size of the gardens attached

to their holders' cottages. Where these gardens do not exist or are very small almost every garden crop, including flowers and fruit, may be found in the allotments; but where there are big cottage gardens the allotments are used to produce two or three staple crops needing comparatively little attention and protection, such as potatoes, parsnips, carrots and sometimes onions and greens.

The villager obtains manure more easily than the townsman but is under a disadvantage as to leisure. He has to do all his work after five in the evening, for he has no weekly half-holiday and is too cognizant of public opinion ever to work on Sunday. This probably is why his plot is less productive than the townsman's. In 1914 the direct value of a twenty-pole allotment to a village labourer in Oxfordshire varied from 1s. 6d. to 2s. 6d. a week according to the nature of the crops and the closeness of cultivation. It was estimated however that from 20 to 25 per cent. of the diet of many rural labourers' families was directly provided by gardens and garden allotments, to say nothing of indirect products in the form of butter and eggs. Fresh vegetables are more necessary in the country than in towns where fresh meat is more easily obtained.

The actual monetary cost of a village garden allotment in Oxfordshire was placed in 1914 at about £1.7s. 6d. a year, namely 7s. 6d. for rent, 15s. for manure and 5s. for seeds.

As in towns so in the country garden allotments have a social and moral as well as an economic value. The allotments and the cottage gardens have given rise to local horticultural associations which hold annual shows for the encouragement of good gardening.

C. Field Allotments. — Most of the field allotments in Oxfordshire are situated in the lighter arable districts of the county, where employment is slack in the winter and where the soil can be worked by the labourer at almost any time.

Between 1880 and 1914 a change took place in the method of cultivating Oxfordshire field allotments. Before 1880 nearly all the work was done by hand and horses were used only for carting purposes. When the plots were of no more than one or two roods manure, potatoes and roots were carried from or to the village in barrows or trucks. A cart, which was often borrowed from the farmer, was used only to gather in the corn.

The change from manual to horse cultivation was caused first by the diminution in the number of casual agricultural labourers and the growing unwillingness of such as remained to dig. Further the increasing regularity of employment enabled the labourer to hire the village haulier to plough his land. Secondly the change arose from the increasing use of the small plough for one or two horses, which has been introduced into the midland counties within the last fifteen years and is now to be found on all the groups of field allotments in Oxfordshire. In the third place when new allotments were made in the later eighties and the nineties much more liberal allowances than previously were made for roads, and these facilitate the use of horses.

Where an allotment is on light soil the holder halves it whenever pos-

sible, using one half for wheat and the other half for potatoes and barley. On the heavier soils beans take the place of barley and heavier crops of wheat are usually raised. Mangolds and swedish turnips are the favourite root crops because they can be used to feed pigs.

The following tables show approximately the annual profit derived before 1914 from cultivating an allotment of one acre by hand and by horses, respectively.

Allotment of 1 acre worked by hand.

Cost.		Yield.	£ s d
Rent.	1 10 0	Wheat, $\frac{1}{2}$ acre, 20 bushels at 4s. .	4 0 0
30 days' work at 2s. 6d. a day. .	3 15 0	Beans, 3 $\frac{1}{2}$ chains, 15 bushels at 4s. .	3 0 0
Manure (value), 5 loads	1 5 0	Potatoes, 1 chain, 12 cwt. at 5s. .	3 0 0
Cartage	1 0 0	Mangolds, $\frac{1}{2}$ chain, 1 ton . . .	12 0
Threshing, 35 bushels at 4d. . . .	11 8		
Seed.	1 0 0		
Total			

Thus a net profit of £1.10s. 4d. a year is realized, unless the value of the straw be taken to equal the cost of the manure when the profit becomes £2.15s. 4d.

Allotment of 1 acre worked by horses.

Cost.		Yield.	£ s d
Rent.	1 10 0	Wheat $\frac{1}{2}$ acre, 16 bushels at 4s. .	3 4 0
Ploughing	1 0 0	Beans or barley, 3 $\frac{1}{2}$ chains, 12 bushels at 4s.	2 8 0
Manure, 5 loads	1 5 0	Potatoes, 1 chain, 10 cwt. at 5s. .	2 10 0
Spreading	1 6	Mangolds, $\frac{1}{2}$ chain, 15 cwt. . .	9 0
Seeding $\frac{3}{4}$ acres, harrowing	5 0		
Cartage	1 0 0		
Seed.	1 0 0		
Threshing 28 bushels at 4d. a bushel	9 3		
Miscellaneous work: 10 days at 2s. 6d. a day	1 5 0		
Total			

If the value of the manure be taken to be equal to that of the straw the net profit in the latter case is £2.0s. 3d. Cultivation by hand is therefore both more productive as regards gross yield and more profitable than cultivation by horses.

In 1914 labourers cultivated field allotments in order to sell their produce in only a few instances in Oxfordshire.

To the weekly addition to his income of 9d. or 1s. from the net profit

of his field allotment must be added the value of the labourer's pig, fed from its produce. A well cultivated allotment and good pigsty provide an Oxfordshire labourer with the means of adding about 2s. 6d. a week to his weekly earnings, and this sum amounts to 12 or 15 per cent. of the incomes of many homes.

In Oxfordshire the allotment system is favoured by the fact that the agricultural working day last as a rule only from seven in the morning to five in the evening, with intervals amounting to an hour and a half for meals. In the past labourers have sometimes overworked themselves in order to cultivate their allotments; but this condition has been ameliorated by the advent of the plough, the smaller size of allotments, and the greater demand for agricultural labour. Yet were the rate of wages raised there is no doubt that, especially if working hours were at the same time slightly lengthened, there would be a lessened demand for allotments.

§ 2. THE CONNECTION BETWEEN ALLOTMENTS AND WAGES.

In connection with the historical sketch with which we began this article certain numerical data as to the county of Oxford acquire significance. From 1825 to 1840 there were some 600 to 800 allotments in Oxfordshire, and they seem to have been almost entirely fuel allotments. In this county there was little or no recourse to the formation of allotments as a measure of poor relief. The provision in the General Enclosures Act of 1845 and private initiative brought the number of allotments up to 9,000 in 1871. The effect of dividing the property of the charities of nineteen villages, and also the activity of parish, borough and county councils, and to a less degree of district councils, helped to make this number 14,700 in 1885 and nearly 18,000 in 1889. In the next twenty-five years new formations of allotments on the one hand were counterbalanced by relinquishments on the other, so that in 1914 the increase in their number since 1889 was one of only about 5 per cent. Private persons and corporations other than administrative bodies have remained the chief providers of allotments in Oxfordshire. No less than 162 of the 321 groups of allotments belonged in 1914 to private landowners, thirty-seven groups to ecclesiastical authorities, and thirty to colleges, hospitals and schools. This circumstance seems to prove both that to let land as allotments is profitable and that the demand for them is spontaneous. Public authorities in this county have hardly ever made use of their powers to use compulsion for the provision of allotments.

As regards the difficult question of the connection between wages and allotments, it appears that until the seventies at any rate the multiplication of allotments in Oxfordshire did not accompany falling wages. In 1850 the average weekly wage of an ordinary farm labourer in the county was between 8s. and 9s., in 1867 it was from 10s. to 11s., in 1867 from 12s. to 14s., and in 1875 from 12s. to 14s. The fact that allotments could be used to supplement inadequate wages had however already been publicly

recognized. The Royal Commission on Employment of Women and Children in Agriculture had reported in 1867 "that the best method by which the pecuniary condition of the agricultural labourer, where low, can be improved, and to which the legislature could give a salutary stimulus by simple and unobjectionable means", was "a more general adoption of the practice of attaching such an amount of land to the labourer's cottage, or, in default of that, of assigning to him such an amount of land as near his dwelling as possible, as will profitably employ the leisure hours of himself or his family". After the breakdown of the efforts of the agricultural labourer to improve his condition in the seventies, landlords, farmers and the State adopted the expedient recommended by the commission. Oxfordshire farmers began to employ men, engaged by the week, for short hours and on low wages, and allowed them to increase their income by cultivating allotments. In 1881 the average weekly wage of a labourer in the county was only about 11s.; it was 12s. in 1886 and in 1891. Farmers recognize the part played by allotments in that they pay the highest wages to and exact most hours of work from, the men who live in farm or "tied" cottages and have to buy all their food.

It should be remembered that Oxfordshire has been one of the counties least affected by the industrial development of the nineteenth and twentieth centuries, and consequently it has always had a low rate of wages for agricultural labour. In 1914 it was only in Oxfordshire, Suffolk and Norfolk, of all English counties, that the total average earnings of farm labourers were less than 16s. a week. In 1909 Oxfordshire was one of the agricultural counties which had the highest percentage of pauperism.

In the years immediately preceding 1914 there was said to be a slightly lessened demand for small allotments, due to an increasing security of employment and the small rise in wages which had followed on the emigration and migration of the younger labourers.

*
* *

To conclude, we find that the demand for allotments is due to two causes. The first, which applies only to the demand for rural allotments, is that the wages earned by agricultural labourers before the war were in some English counties not enough to maintain them and their families and to provide against the average risks of sickness or old age. Even during the best working years of an Oxfordshire labourer's life extra exertion on an allotment was necessary to enable him to bring up his family in health and decency; and in old age he and his wife generally had to be assisted by the poor-relief authorities. The second cause for the demand for allotments is operative in towns and the country alike. It is that an Englishman, especially if he be of peasant origin, has a strong instinct for the land and a desire to make plants grow. When a tradition of more or less personal control of land is implanted in families, an irresistible demand for small plots of land arises.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

FRANCE.

THE DEPARTMENTAL COMMITTEES OF AGRICULTURAL ACTION.

According to a report, dated 14 January 1918, made by the Minister of Agriculture to the President of the Republic, the *Comités d'action agricole* which were instituted by the decrees of 2 and 9 February 1916(1) have fulfilled the important task assigned to them in numerous communes, but there are still too many communes which, in spite of the right to make requisitions and the faculties they acquired under the law of 16 October 1916 (2), have not determined to undertake the amount of agriculture which might rightfully have been expected of them.

Many of these committees have not fulfilled their functions: they have lacked that intelligent impulsion which might have given them guiding ideas and might have helped them to overcome the administrative difficulties to which the aforesaid law gives rise.

The directors of the agricultural services have been engrossed by victualling work which other officials might have accomplished, and have not therefore maintained sufficiently continuous relations with these committees. They have confined themselves too much to the task of distribution, whereas their true mission was to devote themselves above all to the maintenance and encouragement of production.

A circular of the Minister of Agriculture, dated 3 November 1917, put these officials back in their right place. The minister felt himself obliged to complete and amplify their action by instituting a departmental agency which would stimulate their energies and supplement their shortcomings, and give to the local committees practical advice in the matter of applying the law of 6 October 1916. These departmental committees will further serve as connecting links between the communal committees and the commissaries to agriculture instituted by the decree of 24 December 1917, and the latter will have a means of informing themselves directly and rapidly as to pressing needs in the various regions, and of giving to production a bias which will conform to the general interest. To secure this end the following decree was promulgated on 14 January 1918:

" Art. 1. — There is created in the capital of each department and for the duration of the war a departmental committee of agricultural action, composed of the prefect who is chairman, and of the director of agricultural

(1) See our issue for April 1916, pp. 87 to 91.

(2) See our issue for November 1916, pp. 123-127.

services and one agriculturist for each *arrondissement*, chosen by the prefect from two nominees of the agricultural associations of the department.

" Art. 2. — It is the duty of the committee :

" 1st. To inspect the working of the communal committees of agricultural action instituted by the decrees of 2 and 9 February 1916 ;

" 2nd. To help these latter committees to overcome difficulties in applying the law of 6 October 1916, intervening for such end with the owners or the usual farmers of uncultivated lands and causing, when necessary, that these lands be requisitioned and made profitable ;

" 3rd. To maintain relations with the commissaries to agriculture in order to receive guiding ideas from them and to give to agriculture and stock raising the direction which is favourable to the general interest and to the necessities of the time ;

" 4th. To inform these commissaries of the needs of communes for labour, machinery, seeds, manures, repairs, fertilizers and other things necessary to agriculture ;

" 5th. To come to an understanding with the departmental labour commissions and the offices for the distribution of chemical products, in order to make the best possible use of the factors of production ;

" 6th. To propose to the Minister of Agriculture and of Victualling measures fitted to encourage tillers of the soil, and in particular to indicate minimum prices to be observed in buying provisions and animals for victualling the army and the civilian population.

" Art. 3. — The departmental committees supersede inefficient communal committees and take, in their place, the steps necessary to bringing uncultivated land under cultivation, in the conditions contemplated by the first article of the law of 6 October 1916.

" Art. 4. — Every departmental committee draws up a programme of activity at the beginning of each agricultural season, on the basis of a report presented by the director of agricultural services.

" As soon as this decree is published the committees will proceed to make a rapid investigation in order to determine the number of abandoned farms and the areas uncultivated. Thereafter they will immediately draw up a plan for cultivation with a view to the spring sowing.

" Art. 5. — Every departmental committee holds at least one meeting a fortnight. It also meets as often as the prefect or the commissaries to agriculture think necessary.

" The resolutions of each committee are passed by a majority of the votes of the members present at a meeting.

" Art. 6. — In order to have help in any initiative it takes and in the execution of its programme the committee may request a hearing from, and the co-operation of civil and military personages within its department, especially professors of agriculture and officers superintending agricultural labour."

GREAT BRITAIN AND IRELAND.

ENQUIRY INTO CONDITIONS OF AGRICULTURAL EMPLOYMENT IN ENGLAND AND WALES. — *The Journal of the Board of Agriculture*, Vol. XXIV, No. 10, London, January, 1918.

For the information of the Agricultural Wages Board the Board of Agriculture is instituting a general enquiry throughout England and Wales into the present conditions of employment in agriculture. It will be conducted by fourteen investigators each of whom will be responsible for collecting information within an area allotted to him and presenting a report to the Agricultural Wages Board. The scope of the enquiry is limited to questions which necessarily arise when minimum wages are fixed, such as those of the present rates of wages for time and piece-work, the benefits and advantages supplementary to wages in cash, the hours of labour, the rents and tenure of cottages, and the general economic conditions affecting farm workers. On these subjects no official information on a comprehensive basis has been obtained for many years, and therefore it is necessary that the Wages Board should possess a general survey of present conditions. Such a survey will much assist this board in considering in a broad spirit the reports which will in due course reach it from the thirty-nine District Committees in the country.

ITALY.

AGRICULTURAL MOBILIZATION. — *Gazzetta Ufficiale del Regno d'Italia*, No. 44, Rome, 21 February 1918.

The decree on agricultural mobilization, dated 14 February 1918, No. 147, contains a collection of very important provisions, made on the proposal of the Minister of Agriculture, the Hon. Miliani, in order to promote all possible intensification of the cultivation of foodstuffs. We will resume the principal of these provisions.

1) *The Powers of the Ministry of Agriculture*. — For the duration of the war and throughout the whole of the succeeding farming year, the Minister of Agriculture will, in order to obtain an increased agricultural production, provide for the inspection of crops, the organization of agricultural labour and the more profitable distribution of the means of labour and production. This minister is therefore, without prejudice to the powers conferred on him by the provisions in force, enabled by Article 1 of the decree:

a) to promote, organize and enforce the cultivation of uncultivated lands, or exceptionally changes of crops in the interest of the country;

b) to promote the utilization, especially during the periods of intense agricultural labour, of available soldiers and prisoners of war, and to regulate the exemptions from military service and military concessions to agricultural labourers which the military authorities will grant in accordance with indications supplied by agencies depending on the minister;

c) to facilitate the employment on farms of managers and labourers by organizing voluntary loans of labour or, if this prove insufficient, by official compulsion ;

d) to promote the increased manufacture of manures, fertilizers and agricultural machinery and the preparation and selection of seeds, and to supervise production and trade ;

e) to distribute labour, machinery, implements of labour, fertilizers and manures so as to secure the maximum yield, and to facilitate the transport of labour and all else necessary to agricultural production ;

f) in general to adopt all measures aiming at the increase of agricultural production and the protection of the production of foodstuffs.

The powers provided in paragraphs a), c), e) and f) may be delegated to the prefects of the provinces or to persons specially commissioned to exercise them.

2) *The Occupation of Uncultivated Lands.* — If the provisions made under Article 1, paragraph a) of the decree be not observed, or if the enforcement of the cultivation of lands, in accordance with Article 3 of the decree of the Lieutenant of the Kingdom dated 10 May 1917, No. 788 be resisted, the temporary seizure of the lands, rural buildings and stock concerned may be ordered. The resultant occupation will be for a maximum period of six years, and in accordance with the prefect's decree which will also fix the amount of the indemnity due. This indemnity is determined on equitable principles ; it will be paid at the expiry of the period of occupation, and repaid to the State by the farmers, cultivators or institutions who have taken charge of the farm in question. The inventory of the farm is to be made officially, when it is taken over and when the temporary farmer leaves it. The occupied lands are granted to institutions, associations or temporary farmers, the owner not being excluded, on terms fixed by a contract drawn up by the provincial commissaries of agriculture, or, if these delegate their right, by the registrar. The due paid by the concessionaries to the State is placed to a special account, to which will be paid the indemnity owed by the State to the owners or others having rights in the land. The recovery of dues from concessionaries will be made according to the forms and privileges fixed for the recovery of Treasury taxes. At the time the concession is made the due may be replaced by an undertaking to give the State determined quantities of the foodstuffs which are to be grown.

3) *Organization.* — Other articles of the decree establish rules for the compulsory enlistment of labour for agriculture and thus constitute the agency for agricultural mobilization.

In general persons of both sexes may thus be enlisted if agricultural labour be their usual occupation or if they are considered suitable for it in every way. Labour thus compulsorily requisitioned is preferably employed locally. The scale of wages, possible allowances in kind, and every other condition of the employment of such labour, are determined by agreement between those concerned, but may never be less advantageous to the labourer than those which agreed scales or collective labour contracts have established in a given neighbourhood. If no agreed scales of this kind exist

customary rates must be observed. The official enrolment of labourers for agriculture and agricultural industries will have precedence over the enlistment of labour for other industries.

Besides a central committee for agricultural mobilization, to which belong, among others, four members chosen from persons having particularly the scientific and technical knowledge which concerns agriculture, two farmer members, and two agricultural labourers, as well as the general directors of agriculture and the department of agricultural mobilization, the general director of labour, etc., there is established in each province an agricultural commissary who will preside over a special section of the provincial commission of agriculture. Provision is also made for communal and intercommunal agricultural commissaries for the service of mobilization. Other duties are entrusted to the agricultural associations and institutions.

There follow other rules, among them those which govern the soldiers exempted in the interests of agriculture, those which explain the enquiries which must be made before the decree is applied, and those concerned with finance.

To conclude: the ideas informing this agricultural mobilization may be resumed as 1) that of promoting and if necessary compelling the cultivation of uncultivated lands, and the transformations of crops necessary to the production of foodstuffs; 2) that of organizing first the voluntary, and secondly, if necessary, the compulsory enlistment of agricultural labourers; 3) that of promoting all possible increase of means of production.

MEXICO.

LEGISLATIVE REFORMS IN FAVOUR OF LABOURERS IN THE STATE OF JALISCO

— *Boletín de la Cámara Agrícola Nacional Jalisciense*, Second Series, Vol. I, Nos. 6, 7 and 8, September, October and November 1917.

The State of Jalisco (1) has promulgated some important legislative measures for the improvement of the position of labourers generally and of agricultural labour in particular:

These reforms cover:

- I. The payment of labourers;
- II. The regulation of contracts of *métayage*;
- III. The institution of special commissions to apply the law;
- IV. The constitution among labourers of funds of mutual aid.

a) *The Payment of Labourers*. — The new law provides that the daily wage of an adult labourer shall not be less than 60 centavos and that of a boy between sixteen and twelve years old not less than 40 centavos.

(1) For the question of agriculture in Mexico generally and the conditions of agriculture in the State of Jalisco, which by its situation and climate and the wealth and variety of its products is one of the most important States in Mexico, see the article in our issue (*Monthly Bulletin of Economic and Social Intelligence*) for May and June 1914, pages 109, 127.

Wages for rural labour which previously exceeded the minimum fixed by this law shall not be in any way diminished.

Work by contract shall be paid for on the basis of the average work done in a day of nine hours for the minimum daily wage.

Wages shall always be paid in cash, and therefore advances in goods or by opening accounts with the *Tiendas de Rayas* (1) are prohibited.

The wife of a labourer, his children if the boys are not more than twelve years old and the girls under a marriageable age, and others in the guardianship of a labourer, can ask that part of the payment due to him be made to them directly. The landowner will be obliged to concede this, deducting such payment from the wages of the labourer, who will have the right to reclaim it only if he can prove the deduction to have been made unjustly.

Landowners may not detain the wages of labourers when the latter are unable to work because of a sickness or accident which has arisen out of their work.

The wages of labourers cannot be sequestered, even in the proportion established by the Code of Civil Procedure if they are less than 2.25 pesos a day, unless the creditor concerned be another labourer. Besides wages the proprietors must give their labourers dwelling accommodation, fuel, water and grazing for part of their live stock.

When a labourer is the head of a family he will also have the right to the harvest of a part of the cultivable lands on the owner's farm, not less than a thousand metres square, wherewith to supply the needs of his family. This portion of land should if possible adjoin his house or at least not be far distant from it.

The law also modifies the common rules of the civil law as regards bonds, establishing that labourers' debts are binding only for fourteen months after the date on which they are contracted or on which the bond matures.

It provides further that no judicial action can be taken against labourers if their liability be for a less sum than 100 pesos.

b) *Regulation of Contracts of Métayage* — Contracts of *métayage* regarding lands, whether irrigable or not, are subject to the following rules:

The landowner will give the land, the seeds and the oxen, and provide for the maintenance of the oxen.

The *métayer* will have the right to receive from the landowner weekly 25 litres of maize and 50 centavos for every pair of oxen necessary to the cultivation and manuring of his holding.

The expenses of the harvest and of carting will be equally shared by the landowner and the *métayer*. The latter will be bound to repay to the landowner all the expenses the landowner incurs for the planting of the holding, paying in cash what he received in cash and in kind what he received in kind. The landowner is free to recoup himself for this expense from the

(1) The *Tiendas de Rayas* are stores belonging to the owners of the farms, in which articles of food of clothing are sold, and where the labourers employed on the farms are obliged to buy their supplies.

métayer's part of the harvest, which must however be valued at the highest market price.

The *métayer* will not be answerable for losses arising out of accidents or *force majeure* unless such be due to his fault or negligence.

He will be obliged to prepare the land assigned to him and do whatever is necessary in order to make the quality and quantity of its produce as good as possible.

All the produce obtained will be shared in equal halves by the landowner and the *métayer*.

c) *Institution of Special Commissions for the Application of the Law.* — The law also provides for the institution of agricultural, industrial and mining municipal committees, each composed of a president, three landowners and three agricultural labourers, elected as regards both these classes by a meeting of landowners and of labourers belonging to the various industries of the individual municipalities.

The object of these committees is to see that the provisions of the law are observed by the labourers and by the landowners, and particularly to decide all disputes which may arise while the law is being applied. In this sphere these committees will constitute the only competent judge, and only judgement as to exceptions in the interpretation of the law will belong to the executive power.

In the exercise of their functions these committees will be helped by the municipal presidents, to whom will be entrusted in particular the execution of resolutions of the committees.

Expenses incurred in constituting these tribunals must be met by the landowners exclusively, who will pay quotas to be fixed by the municipal presidents.

d) *Institution of a Fund of Mutual Aid among Labourers.* — With the same object of helping the labouring class the law provides that a special fund of mutual aid be formed. Every labourer will be obliged to deposit in a reserve fund, to be constituted for each industry, at least 5 per cent. of his weekly wages.

The funds thus collected will serve to form a service of mutual aid among labourers, of which the special objects and the methods will be established and regulated in each municipality by the competent municipal committee.

The labourers will elect trustees who will receive directly from the landowners the quotas, deducted by the latter from wages, which are destined for the reserve fund, and this fund will be administered according to rules which every municipal committee will draw up for the purpose.

These chief provisions of the law No. 96, introducing agricultural reforms into the State of Jalisco, have been active since 1 January 1916.

UNITED STATES.

BOY VOLUNTEERS FOR AGRICULTURAL LABOUR IN MAINE. — HEALD (A. A.)
 "Boy Patriotism in Farm Labor", in *Rural Manhood*, Vol VIII, No. 10, New York,
 December 1917

When it became evident in the spring of 1917 that there was an impending shortage of farm labour, the Junior Volunteer Movement of Maine, under the leadership of the Young Men's Christian Association, was proposed as a partial solution of the problem. It received the sympathy and financial support of the State Council of Defence, and within three weeks schools, towns and cities were canvassed for suitable boys. Nearly seven hundred recruits were obtained, and on enlistment they signed an application for enrolment, which was also signed in each case by a parent or guardian.

Each applicant was then required to pass an examining board of five men, who accepted no boy having any organic weakness. About 10 per cent. of all the candidates were rejected. The accepted boys were graded according to their aptitudes and then placed in a training camp.

In this camp they received daily three hours of military drill, three hours of agricultural instruction and there were four hours of agricultural demonstration. A seven days' course of practical farming was arranged; and this taught them to recognize different kinds of animal foods and the customary amounts of ration allowed, and also gave teaching as to the handling and care of horses, cows, hens, swine and crops and other farm work. This instruction was supervised by members of the faculty of the State Agricultural College.

The feeding of the boys was arranged on an army basis.

There was a careful inspection of farmhouses, for boys could be lodged only in homes where they would receive proper and considerate treatment. The resulting arrangements were very successful.

Each camp of boys had its adult leader. The leaders were carefully chosen, largely from the teaching profession. It was their task to see that the boys did their work and that the farmers fulfilled their obligations. They were paid \$ 100 a month and their expenses and had absolute control in their respective camps. They made all the collections from the farmers, kept the boys' pay roll and the weekly records, and were responsible for the boys' right use of their spare time.

The State paid the boys a dollar a day, boarded them during their training, and supplied them with uniforms, blankets, tents and medical treatment. Transport was furnished by the State and the railways.

The farmers boarded the boys and were charged a dollar a day by the State for a boy's work. Extra expenses were borne by the State.

At the close of the season each boy received a certificate of honourable discharge and a medal from the United States Department of Labour.

UNION OF SOUTH AFRICA.

THE SETTLEMENT OF EX-SERVICE MEN IN CAPE COLONY. — *United Empire*,
Journal of the Royal Colonial Institute, Vol. VIII (New Series), No. 12. London,
December 1917.

An offer to set aside for British ex-Service men 2,000 acres of the irrigated area known as the Cape Sundays River Settlements was made in March 1915 to Sir Rider Haggard, then on his mission round the empire for the Royal Colonial Institute. The property in question is some twenty-five miles from Port Elizabeth, the seaport of the eastern province of Cape Colony, and is served by the main railways from Port Elizabeth to Cape Town and Johannesburg. The company owning it was formed some years ago and has the object of providing land suitable for settlement by desirable British and South African settlers. The climate on this property is entirely healthy, the soil unsurpassed; and the crops which can be cultivated profitably are numerous. Citruses form the main crop and are marketed in Europe in the summer when they are out of season in the northern hemisphere. Lucerne, mealies, apples, pears, beans, figs and olives are other crops; and bees and poultry can be kept as a good secondary source of profit.

The Director of Immigration for the Union of South Africa has described the scheme for colonization by soldiers and sailors as "one of the most favourable closer settlement schemes which the Union is ever likely produce".

The company has now definitely reserved 2,000 acres to be known as the Royal Colonial Institute Block. The land will be divided into blocks of 20, 30 and 40 acres, the latter to be the maximum area allotted although a settler may acquire further land outside this area. There will be a qualified staff of advisers who will keep in touch with the settlers and will, if necessary, arrange for the execution of such preliminary work as first ploughing, planting, fencing and transport, the cost of these undertakings to be added to the purchase price. The settler's initial outlay will thus be reduced.

The special price which British ex-service men will pay is £30 per acre of irrigable land, cleared of bush, stumped and ploughed to a depth of nine or ten inches. The purchase price will bear interest at the rate of 6 per cent.: 20 per cent. thereof will be paid in the sixth year of occupation and the balance in the four following years. The settler will therefore pay only interest in the first five years in which he is establishing himself.

It is considered necessary that he should have a working capital of £300.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Sixteen other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

*In quoting articles, please mention this REVIEW:
International Review of Agricultural Economics*

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown (100 keller) (Austria-Hungary)	=	10d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1s. 1 ¹ / ₃ d.	at par
1 Declatine (2 tchetwert) (Russia)	=	2.69960	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ²³ / ₆₄ d.	at par
1 Dollar, gold, (\$) (100 cents) (United States)	=	4s. 3 ¹ / ₁₆ d.	at par
1 Drachm, gold, (100 lepta) (Greece)	=	9 ³³ / ₆₄ d.	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1s. 7 ⁵³ / ₆₄ d.	at par
1 Franc (100 centimes) (France)	=	9 ³³ / ₆₄ d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokos (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold, (100 bani) (Rumania)	=	9 ²³ / ₆₄ d.	at par
1 Leu (100 statinki) (Bulgaria)	=	9 ³³ / ₆₄ d.	at par
1 Lira (100 centesimi) (Italy)	=	9 ³³ / ₆₄ d.	at par
1 Litre	=	0.21998	gallons
	=	0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ d.	at par
1 Mark (100 penni) (Finland)	=	9 ³³ / ₆₄ d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold, (Brazil)	=	2s. 2 ⁶¹ / ₆₄ d.	at par
1 Milreis, gold, (Portugal)	=	4s. 5 ¹⁹ / ₆₄ d.	at par
1 Peseta, gold, (100 céntimos) (Spain)	=	9 ³³ / ₆₄ d.	at par
1 Peso, gold, (100 centavos) (Argentina)	=	3s. 11 ³⁷ / ₆₄ d.	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18s. 0 ¹⁵ / ₆₄ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold, (100 kopeks) (Russia)	=	2s. 1 ³ / ₈ d.	at par
1 Rupee, silver, (16 annas) (British India)	=	1s. 4d.	at par
1 Talari (20 piastres) (Egypt)	=	4s. 1 ¹¹ / ₃₂ d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold, (2 fun or 100 sen) (Japan)	=	2s. 0 ³⁷ / ₆₄ d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

UNITED STATES.

A STATISTICAL ENQUIRY INTO CO-OPERATIVE
ORGANIZATIONS (I).

§ 3. TURNOVER AND MEMBERSHIP.

All the organizations did not report on every point as to which information was requested, but on the basis of averages the annual volume of business and the membership of all organizations reporting have been estimated, as shown in Table III. It is estimated that the 5,424 organizations reporting have altogether an annual volume of business amounting to \$625,940,448 and a total membership of 661,728. As regards volume of business, the elevators take the lead with an estimated total of \$234,529,716; next come fruit and produce associations with a total of \$140,629,918; creameries and cheese factories with a total of \$83,360,648; miscellaneous marketing associations with a total of \$48,214,866; cotton associations with one of \$34,392,258; stores with one of \$14,552,725; live stock shipping associations with one of \$9,482,592; and finally to bacco associations with one of \$6,746,270.

(1) For the first part of this paper, see our issue for February 1918, page 90.

TABLE III. — *Estimated volume of business and membership, by kinds of organizations.*

Kind of organization	Number of organiza- tions	Annual volume of business		Membership	
		Estimated total	Average of organi- zations reporting	Estimated total	Average of organi- zations reporting
Elevators	1,637	234,529,716	143,268	166,974	102
Creameries and cheese factories	1,708	83,360,648	48,806	141,786	83
Fruit and vegetable produce	871	140,629,918	161,458	108,004	124
Cotton	213	34,392,258	161,465	18,531	87
Stores	275	14,552,725	52,919	60,500	220
Tobacco	43	6,746,270	156,890	14,448	336
Livestock	96	9,482,592	98,777	13,440	140
Miscellaneous	581	48,214,866	82,986	134,211	231
	5,424	(1) 625,940,448	115,402	(1) 661,728	122

(1) Total volume of business and total membership obtained by multiplying average reported by total number.

We will now examine the various kinds of co-operative organizations, one after the other, completing the purely statistical information supplied by Table I.

I. Grain Elevators and Warehouses

a) *Number and Situation.* — The 1,637 grain elevators and warehouses which reported are distributed among twenty-three States, as shown in Table I. Two hundred and sixty-four are in North Dakota, 241 in Minnesota, 228 in Iowa, 192 in Illinois, 183 in Nebraska, 153 in Kansas and 135 in South Dakota. In other words, more than 85 per cent. of the elevators reporting are in these seven States of the grain belt. In Oregon, Washington, Idaho, Utah and Colorado practically all the grain has until recently been handled in sacks, and the farmers have consequently organized warehouses instead of elevators. Premises on which the grain can be handled in bulk at the termini are now being completed in the grain centres of the Pacific coast, and many of the warehouse companies are preparing to build elevators. When the practice of handling the grain in bulk at the terminal markets becomes general, the warehouses will gradually be replaced by elevators. A chief reason for this change has been the high cost of sacks for grain, their price having increased rapidly in the last two years.

It is estimated that there are a few hundred farmers' grain marketing organizations from which no reports have been received, but they are believed to be the smaller organizations, for the largest and most successful businesses seem to have replied most promptly to the request for information.

b) *Plan of Organization.* — One hundred and seventy-four elevators and warehouses report that they are organized as capital stock companies, 496 that they are organized as co-operative companies. The latter however also, for the most part, have capital stock. The former are the companies which manage their business and distribute their profits according to the method commonly followed by stock companies. Companies which had only a few members or most of whose stock appeared to be owned by one or a few individuals were excluded from the enquiry. Of 1,074 elevators which do not distribute their profits on a co-operative plan many have certain co-operative characteristics. All of them distribute their stock among a number of farmers ; some limit the number of shares which one person may own ; many have regulations as to the transfer of stock ; and many adhere to the "one man one vote" principle. The stock is in many cases distributed among farmers, few of them holding more than one share. These organizations chiefly fail to follow co-operative principles in their distribution of profits, for they do not distribute a dividend to those supplying their grain. The fact should however be borne in mind that many States have enacted co-operative laws only recently, and there has therefore been no provision for paying dividends to suppliers. The elevators grouped in the co-operative class limit the dividends they pay on stock and distribute any further profits they may have as dividends to suppliers, sometimes to all suppliers, sometimes only to those of them who are members. Often the non-members are paid at a rate half that at which members are paid, and some associations provide that dividends paid to non-members be applied towards the purchase of a share of stock. The shares of these companies range from \$10 to \$100, the par value being in most cases from \$10 to \$25.

b) *Business transacted.* — As previously stated the reports as to the volume of business transacted are not all for the same year. The average volume of business reported was \$143,268. If this be taken to be the average for all the 1,637 elevators reporting, the annual volume of business is found to be \$234,529,716.

Many elevators carry on side lines of business as well as handle grain. Of the 1,637 elevators 630, or 38 per cent., handle fuel, so that it is evident that farmers' elevators have found this practice to be desirable. In most cases the farmers themselves shovel the coal from the bins, thus reducing the costs of handling to a minimum. Most of the coal is hauled by the farmers on their return trip from delivering grain at the elevator. The largest number of elevators reported to handle fuel, namely 99, was found in Iowa ; 94 reported from North Dakota ; 85 from Kansas ; 82 from Nebraska ; 75 from Minnesota ; 71 from South Dakota ; and 66 from Illinois.

The handling of live stock was reported by 132 elevators. Of them 58,

or slightly more than one third, are situated in Nebraska, where therefore the practice is prevalent ; 20 are in Iowa ; 13 in South Dakota ; and 12 in Minnesota.

Lumber was handled by 80 elevators, including 33 in Iowa, 13 in Nebraska and 10 in Illinois. The fact that the elevators handling lumber are so much fewer than those handling fuel is due to the greater outlay of capital and the larger share of a manager's time which the transport of lumber requires. One elevator reports that it handled \$75,000 worth of lumber in a year, and lumber is thus in some cases an important element of an elevator's business.

Twelve of the 28 elevators which reported that they handled fruit and vegetable produce are in Kansas. Of the 16 handling merchandise six are in Kansas and three in Montana. Miscellaneous products and supplies, which heading includes binding twine, fence wire and posts, cement, oil and miscellaneous goods, are reported as being handled by 640 elevators.

c) *Members.* — Table II shows that 149,618 farmers make up the membership of 1,471 elevator and warehouse companies, the average for each company being therefore 102. Taking this average as a basis, it is estimated that 1,637 companies which this report covers represent about 166,974 grain farmers. A great many farmers derive benefits from a farmer's company to which they do not belong by consigning their grain through it. Among such benefits are the dividends sometimes paid to non-members, and the better prices sometimes secured by the organization of a company. It is estimated that at least 125,000 farmers who are not members of the companies market their grain through the 1,637 elevators which this survey covers. Added to the members they bring the total number of those who do business with these elevators up to about 289,000

d) *New Companies.* — New companies are being formed constantly. No accurate record of their number is kept but it is estimated that several hundred were formed in 1914. Not all of them became active however, some failing to secure capital or encountering other difficulties.

2. Creameries and Cheese Factories.

a) *Number and Situation.* — The 1,708 creameries and cheese factories which reported are distributed among 39 States as shown in Table I. Two thirds of them, namely 624, 301 and 204, are in Minnesota, Iowa and Wisconsin, respectively. Seventy-five are in New York and 70 in Michigan, and the rest are widely distributed among thirty-four States.

b) *Plan of Organization.* — Classified as shown in Table II, there are 521 creameries and cheese factories working on a capital stock basis and 1,124 which are co-operative. We refer our readers to the description of the organization of a cheese factory of the co-operative type in a recent issue of this review (1).

c) *Business transacted.* — The volume of business was reported for the

1) See our issue for December 1917, page 21.

four years 1912 to 1915, some organizations reporting for each year. The average volume of business as reported was \$48,806. Taking this average as a basis, the annual volume of business of the 1,708 creameries and cheese factories reporting is \$83,360,648 (Table III).

Only 58 of the creameries and cheese factories report that they handled anything except milk and cream; namely five of them fruit and vegetable produce, four fuel, three live stock, two grain, and 44 miscellaneous products. There is therefore a contrast between the creamery and cheese factory associations and the elevator companies in this respect. The work of the former is less seasonal than is that of the elevator companies, and a buttermaker or cheesemaker finds it difficult to attend to outside duties. The elevators are all situated on the railroad, conveniently for the unloading of supplies, and usually have ample warehouse and storage accommodation. The creameries, on the other hand, often have no such accommodation and are at a distance from a railroad.

d) *Members.* — The average membership reported was 83, giving a total of 141,786 members for the 1,708 associations. As in the case of the elevators, many suppliers are not members. Suppliers of a large number of the creameries and cheese factories share however in the benefits of the organization on the same basis as members, for the farmer who delivers the total product of his cows to a company is considered to be a member of it. There are cases in which the ownership of stock forms the basis of membership and others in which a small membership fee is exacted.

e) *New Companies.* — The movement towards organization is much older among dairy farmers than it is among grain farmers; and therefore new associations have in the last few years been far more frequently formed among the latter than among the former. Farmers' elevators have increased most rapidly in the last five years, while the period of the most rapid organization of dairies and cheese factories culminated about 1912.

A few central selling associations are being founded; and there are indications that a great many of these will be formed in the next few years by federating the companies in a given territory, for it is thought that better means must be provided for selling the products now manufactured.

3. *Associations for Marketing Fruit and Vegetable Produce.*

a) *Number and Situation.* — The 871 associations for marketing fruit and vegetable produce are much more widely distributed over the country than any other class of co-operative enterprise, for, as shown in Table I, there are one or more of them in each of 42 States. The States which lead in this respect, and the number of these associations which each of them includes, are as follows: California 124, Arkansas 63, Florida 55, Washington 52, Oregon 40, Louisiana 34, Missouri 34, New York 32 and Texas 31. In California and Florida the organizations of citrus-fruit growers are most important, in the North Pacific States those of apple growers. Elsewhere the kind of association most important varies with the kind of fruit or vegetables chiefly produced for trade.

b) *Plan of Organization.* — Of the fruit and vegetable produce associations reporting, 307 are organized as capital stock companies and 504 co-operatively. The proportion following co-operative methods is therefore considerably larger than in the case of the elevators and slightly smaller than in that of the creameries and cheese factories.

There is a tendency among the co-operative associations towards centralized selling and unity of action in matters of mutual interest other than selling. It is realized by the federation of small local associations into district organizations which, in their turn, organize a central selling agency. In some cases district or local associations federate in order to collect information as to crops and markets and accomplish other work impracticable for them individually, but retain their individual machinery for making sales and their policy as to sales. The policy of conducting sales centrally has been adopted by the citrus growers of Florida and California and the walnut and almond growers of California, and has gained favour from time to time among associations in the Pacific North-West. The plan of federating in order to gather information and improve distribution has been adopted by many co-operative and independent companies in the vegetable-growing districts when unusually heavy crops have had to be handled.

A history of the co-operative movement in the districts growing fruit and vegetable produce would show many experiments and a support of the organization which varied from one year to another. The most successful co-operation among fruit and vegetable marketers is usually found in districts where associations of the sort are, comparatively speaking, not of recent origin. There are a few exceptions: for example, several district organizations in the Pacific North-West have made rapid progress in the short period for which they have existed.

Co-operation in the marketing of fruit and vegetable produce is strongest in districts remote from the consuming centres. Thus necessity does and will cause the co-operative organization which overcomes such difficulties as the distance from markets, the perishable nature of merchandise which renders skill in marketing and distributing it necessary, and the lack of sufficient buyers in the field to cause entire crops to be bought regularly or cash.

c) *Business transacted.* — The average annual volume of business is reported as \$161,458. Since the total number of associations reporting was 871, the estimated total annual volume of business is \$140,629,918. In determining this figure care was taken to exclude the figures supplied by large central organizations, and the average is therefore representative. The volume of business of a central organization is the sum total of that of the local organizations of which it consists, and to include figures for the one and the others would therefore involve duplication.

Box shooks, paper, nails, spraying materials and growers' general supplies are handled by practically all these organizations. Prices, quality and supply fluctuate to such an extent that many growers have been seriously handicapped in individually securing their requisites at the proper time from the miscellaneous sources available. Products and supplies

are handled by 190 of the fruit and vegetable produce associations reporting; 45 of them undertake canning; eleven of them handle fertilizers, five grain, five fuel, four merchandise; two consign live stock; and 118 handle a number of products classified as miscellaneous.

d) *Members.* — The average number of members reported by each of 778 fruit and vegetable produce associations is 124: and the estimated total membership of the 875 associations reporting is therefore 108,004.

Usually producers become members in order to consign their produce through these associations. Membership fees range from \$5 to \$100, and membership is in practically all cases nontransferable. In a few cases merely to sign a contract to deliver all of certain products to be sold by an association creates membership thereof. These contracts are continuous; and the producer may cancel them only in certain periods of each year.

e) *New Companies.* — Co-operation among growers of fruit and vegetable produce is in most parts of the country still experimental. It is developing rapidly in many of the truck and newer fruit producing districts, especially in the South. New associations arise each year. Some are short-lived, but there are signs pointing to rapid development in the next few years of co-operative methods of handling perishable products in the districts in which they are grown.

f) *Fruit and Vegetable Canneries.* — Forty-five of the companies which we have classed as fruit and vegetable associations conduct canneries. Practically all of them are primarily engaged on canning fruit and vegetable produce, but most of them also consign fresh produce when markets are considered good. The largest number of farmers' canneries is found in Indiana and the North Pacific States. Individual turnovers vary from \$10,000 to \$1,500,000 a year. A few of the associations operate vinegar plants and evaporators in connection with their canneries.

About \$3,500,000 were received for canned and dried fruits and vegetables by the co-operative canneries in 1914. This is a comparatively small sum, for the value of the business in the United States as a whole in 1914 exceeded \$158,000,000. Few farmers' canneries have succeeded. In one State alone 80 canneries which were organized by local farmers during a period of ten years have ceased to exist, none of them having attained to any degree of success.

4. Cotton Organizations.

Reports were received from 213 cotton associations distributed over fourteen States. More than half of them are in Texas and Georgia, 71 in the former and 44 in the latter State. Alabama reported 19, Arkansas 15, South Carolina 14, Oklahoma 13, Mississippi 11, and North Carolina 10; and the remainder are scattered over the other cotton-producing States of the South. Practically all of them are cotton-warehousing associations. If the number of grain elevators be compared with that of the cotton asso-

ciations, it is evident that the cotton growers of the South are much less well organized than the grain growers of the North Central States.

The favourite plan of the cotton associations seems to be that of organizing on a capital stock basis, for 156 reported that they had this form and only 40 that they were co-operative in form.

The average volume of business reported was \$161,465, which gives a total of \$34,392,045 for the 213 organizations.

An average membership of 87 was reported by 145 associations, which gives a total of 18,531 members for the 213 associations which reported.

Twenty-five associations reported that they handle articles other than cotton: seven handle fertilizers, three grain, one fuel, and fourteen miscellaneous products.

5. *Co-operative stores.*

The 275 stores which reported are well distributed over 35 States: there are 36 in Kansas, 32 in Wisconsin, 30 in Minnesota, 17 in North Carolina and 14 in Iowa (Table I). Probably many of which the names have not been secured exist, for the agencies which furnished names gave most attention to the organizations for marketing agricultural produce directly.

Most of the stores are organized co-operatively: 163 reported that they were so while 90 had the form of stock companies.

The average volume of business reported was \$52,919, giving a total of \$14,552,725 for the 275 stores which reported. The average reported membership of an association was 220, giving a total of 60,500 members for the 275 stores. Ninety-seven stores conducted secondary businesses; 15, of which six were in Kansas, handled fruit and vegetable produce; nine handled grain and six fuel; six, of which four were in Kansas, consigned fertilizers, five handled fertilizers, four cotton, three lumber, one live stock, and 46 miscellaneous products and supplies.

6. *Tobacco Associations.*

Twenty-one of the 43 tobacco associations which reported are in Kentucky, seven are in Ohio, five in North Carolina and five in Virginia. Of the 39 which reported on the form of their organization, 32 were capital stock companies and seven were co-operative. The average annual volume of business reported was \$156,890, giving a total of \$6,746,270 for the 43 organizations. The average membership reported is comparatively large, namely 336, which gives a total of 14,448 members for the 43 associations. Only two of these associations reported handling anything except tobacco, namely one which dealt in fertilizers and one which dealt in miscellaneous products.

7. *Live Stock Associations.*

Farmers' associations for the marketing of live stock are of recent origin, most of them having developed in the last few years. Their form of

organization is more or less informal. Most of them own no property and do not need much capital, and therefore they frequently are not incorporated under the State laws. On this account, many associations consigning live stock have undoubtedly not been reported and many have not replied to the request for information. Altogether 96 reported, namely 30 in Minnesota, 25 in Nebraska, 20 in Iowa, and 21 which distributed over 11 States.

Generally these organizations consign stock to markets, receive payment therefor, deduct thence for necessary expenses, including the manager's commission, and pay the remainder to farmers.

Sixty-four reported that they are co-operative in form, 17 that they are stock companies.

The average volume of business reported is \$98,777 giving a total of \$9,482,592 for the 96 associations. The average membership is 140, giving a total of 13,440.

Thirty-five of the associations handle goods other than live stock, namely nine fuel, five lumber, one merchandise, one vegetable produce, one cream, and 18 miscellaneous products and supplies.

18. Miscellaneous Organizations.

Of the organizations reporting 581 were classed as miscellaneous (Table I). Some of these handle only one product, others market a variety of products. When only a few associations were found to be handling a certain product they were placed in the miscellaneous class, as were organizations doing business of a kind which could not be accurately ascertained. The geographical distribution of the miscellaneous associations is fairly uniform and they are found in 47 States: 46 are in Nebraska, 39 in Kansas, 39 in Maine, 34 in California, 31 in Iowa, 28 in North Carolina, 28 in Washington, 27 in Minnesota, 26 in Idaho and 24 in Illinois.

The majority of these associations, namely 313 of them, reported that they are co-operative, while 219 are capital stock companies. The average annual volume of business is \$82,986, giving a total of \$48,214,866 for the 581 organizations.

Four hundred and ninety-four organizations reported an average membership of 291, which gives a total membership of 134,211 for the 581 associations.

Some of the associations in this class failed to report what goods they handle. Fruit and vegetable produce are handled by 68, fuel by 43, lumber by 42, fertilizers by 42, grain by 22, nuts by 19, cream by 13, cotton by 12, live stock by seven, merchandise by five, tobacco by three, and other miscellaneous products and supplies by 339.

§ 4. CO-OPERATION IN REPRESENTATIVE STATES.

In order to give a clear picture of the condition of organizations of the type we are considering we will briefly state the results of surveys of certain different States. These States are chosen as representing different

parts of the country, but several in the North Central group, where co-operation among farmers is most general, have been included. States have also been chosen because they illustrate the degree of organization existing among the fruit growers of the West, the farmers of the South, of the tobacco belt and of the truck-growing districts, and of the older farming districts of the North Atlantic States.

a) *Minnesota*. — Co-operative organizations are most numerous in Minnesota where are 980 or 18 per cent. of the 5,424 organizations in the United States. This prominence of Minnesota is largely due to its position as a dairy-farming State. Co-operative creameries and cheese factories form about 63 per cent. and elevator companies about 25 per cent. of its associations. The other 12 per cent. include associations for marketing live stock, fruit and vegetable producer associations, and a few miscellaneous organizations.

More than 600 of the 850 creameries of the State are owned by the farmers, and Table II shows that most of these are co-operative. Nearly all the farmers' associations which reported themselves to be stock companies are elevator companies.

The figures reported by a large proportion of the associations give a basis for estimating the annual volume of business which the organizations as a whole transact. The annual total exceeds \$50,000,000. The 980 organizations reporting have about 90,000 members, which indicates the extent to which farmers in this State have organized for the purposes of manufacturing and marketing.

b) *Iowa*. — In Iowa 505 farmers' marketing organizations were reported, and this State therefore comes second to Minnesota. The two States have very similar conditions. The chief organizations in Iowa as in Minnesota are those conducting elevators and creameries which comprise 85 per cent. of the associations reporting. Iowa has however the smaller number of creamery and cheese factory associations, namely 204 as against the 624 in Minnesota.

c) *Wisconsin* ranks third among the States in respect of the number of its organizations reporting. It is a less important grain growing State than Minnesota and Iowa, and has therefore comparatively few farmers' elevator companies. It is an important dairy-farming State; and 75 per cent. of the companies which reported from it conduct creameries or cheese factories. Whereas in Minnesota and Iowa nearly all the organized dairies are creameries, in Wisconsin a large number of them are cheese factories. The other kinds of organizations found in Wisconsin are like those in Minnesota and Iowa.

d) *Kansas* is another of the States in which farmers' organizations are very numerous. It is an important grain growing State and more than 60 per cent. of the associations which reported are farmers' elevator companies. This State contrasts with Wisconsin in that it has many grain elevators and only a few organized creameries and cheese factories.

e) *California*. — Conditions affecting the organization of farmers in California differ from those in the North Central States. California is

one of the leading fruit growing States, and the fruit grower has found it profitable to organize the marketing of his produce: it is not therefore surprising that more than 60 per cent. of the organizations reporting from this State are fruit and vegetable produce associations. The others are creameries and cheese factories, stores, olive and nut associations, and various miscellaneous farmers' marketing enterprises.

Co-operation in this State is noted for the central organizations, made up of local units, which are found among the citrus, walnut, almond, raisin and apple growers. There are many examples of centralization of this kind throughout the United States but it has been particularly successful in California.

i) *The North Pacific States.* — The four Pacific North-Western States — Oregon, Washington, Idaho and Montana — may be grouped for consideration of the farmers' marketing activities. Of the 329 organizations which reported from these four States, about 35 per cent. are fruit and vegetable produce associations, 30 per cent. grain elevators or warehouses, 15 per cent. creameries or cheese factories and 7 per cent. stores, while 13 per cent. are classed as miscellaneous.

The central selling organizations of the apple-growers are most noteworthy. There have for the last five years been various movements aiming at making the fruit growers' associations in these States more effective. They have led to the rise and fall of many central selling and other associations, and many changes of affiliations and of policy among local associations.

In these States a number of very successful canneries receive the fruit and vegetable produce which cannot be advantageously marketed in a fresh state. A number of failures among such canneries have however also been reported.

g) *Texas.* — Conditions in the State of Texas are such that it may be considered by itself. Over 50 per cent. of the organizations reporting thence are cotton associations and about 20 per cent. are fruit and vegetable produce associations. The remainder include a few grain elevators, a few creameries and some miscellaneous organizations.

h) *Florida.* — The organizations in Florida are, like those in California, largely for the marketing of perishable products, such as citrus fruits. About 80 per cent. of the organizations reporting from this State are fruit and vegetable produce associations. The others are principally miscellaneous.

i) *North Carolina, South Carolina and Georgia.* — Of the total number of organizations which reported from these three States, about 41 per cent. are warehouse associations handling cotton, this form of organization being particularly common in Georgia; about 12 per cent. handle fruit and vegetable produce; about 12 per cent. conduct stores; more than 25 per cent. belong to the miscellaneous class; and the others consist of a few creameries and tobacco associations and one live stock association.

j) *Kentucky.* — This State is interesting because of its tobacco growers' associations: nearly half the tobacco associations from which reports were

received are situated in it. The State reported 66 organizations of which 21 are tobacco associations, 15 fruit and vegetable produce associations, 17 miscellaneous associations, six conduct stores and six creameries or cheese factories, and one is a grain elevator company.

k) *Virginia, Maryland and Delaware.* — These three States reported altogether 82 marketing associations, of which 39 are miscellaneous, 22 are fruit and vegetable produce associations and 12 creamery or cheese factory associations, five handle tobacco and one handles live stock. These States are in a truck and fruit growing district and contain some good examples of truck growers' central marketing organizations.

l) *New York.* — The State of New York reported 124 organizations of which about 60 per cent. are creamery and cheese factory associations and about 25 per cent. handle fruit and vegetable produce. The others consist of a few co-operative stores and miscellaneous organizations.

m) *The New England States* reported altogether 157 marketing organizations, of which 61 conduct creameries, 49 are miscellaneous, 27 handle fruit and vegetable produce, 19 conduct stores, and one is a grain elevator company.

§ 5. REPRESENTATIVE TYPES OF CO-OPERATIVE ORGANIZATIONS.

Requests for more detailed information were sent to some of the larger co-operative associations and also to organizations typifying a certain class or illustrating a particular development of co-operation.

The California Fruit Growers' Exchange has several times occupied our attention in this review in recent years (1). It distributes more than 60 per cent. of the citrus fruit sent out of California, and in 1916 paid more than \$27,000,000 to growers for their fruit. There are now more than 8,000 members of the exchange.

The growers are organized in local associations which in turn are members of district exchanges, and these latter are united in the central exchange.

The California Fruit Growers' Exchange has agencies in the principal markets of the United States and Canada which represent it exclusively. It can thus carefully supervise the distribution of its members' produce and secure daily information as to conditions in the various markets. It has a number of departments which undertake different lines of work: the sales department is concerned with the marketing of the fruit; the traffic department with transport; the field department helps to standardize the fruit and prepare it for market and to secure new members; the advertising department advertises the members' produce; the legal department keeps the exchange and its members informed as to legislation affecting the industry.

(1) See our issue for January 1915 (*Monthly Bulletin of Economic and Social Intelligence*) page 20.

Supplies are purchased by the growers through a separate organization known as the Fruit Growers' Supply Company which had, in the year ending 31 August 1916, a turnover of more than \$4,000,000. The supplies which members buy through this organization include box shooks, labels, tissue paper wrappers, spraying materials, fertilizers, and other packing-house and orchard supplies.

Unsatisfactory conditions affecting the marketing of almonds led to the organization of the *California Almond Growers' Exchange* in 1910. It followed on numerous unsuccessful attempts, spread over nearly twenty years, to form an organization of the sort. When founded the organization consisted of 11 associations comprising about 230 growers. It now includes 18 associations and has a total membership of about 1,000.

It consists of a number of local non-stock associations charging membership fees varying from \$1 to \$2.50. These local associations are founded in communities growing enough almonds to make them advisable, and they are affiliated to the central exchange. Special arrangements allow growers without local associations also to market through the exchange. A pool is kept for every variety of "fancy grade" almonds, and the expenses of each pool are kept separate and charged to the almonds it contains. Sales are made over a large part of the United States; as many as 600 wholesale dealers have handled the organization's output in one season. A nut-shelling plant has been erected and the development of the Eastern demand for shelled almonds is planned. The present annual volume of business is about \$750,000 and this will be increased in the next few years because a large acreage has been planted with almond-trees which are not yet bearing.

The *Delta Creamery Company* of California was founded in 1914. Its members are dairy farmers, who have since the formation of the company received much more satisfactory prices than they did when they marketed their produce individually.

The creamery has established in San Diego a wholesale house through which it now markets about a third of its output with good results. It is planned to extent this method of selling so that it comes to be applied to the whole output.

The *Florida Citrus Exchange* is a co-operative non-stock association formed on account of the unsatisfactory conditions formerly affecting the marketing of the citrus fruit of Florida. During six years the exchange built a number of packing-houses in which it now has about \$600,000 invested. It handled about 700,000 boxes of fruit in its second year, in 1915 more than 2,000,000. At first the loss from decay was large, but improved methods have much reduced it and it is now comparatively small.

The exchange has been instrumental in securing new markets for Californian fruit. At first fruit was consigned only to eighteen or twenty markets, but now there are about 135 agencies in the United States and Canada which handle the output of the exchange. During the last four years \$250,000 have been spent on advertising the brands of the exchange, and

as the demand has been increased the money is considered to have been well spent.

The exchange consists of four divisions — the individual growers, the local associations which these form, the subexchanges formed by the local exchanges, and the central exchange which is formed by the subexchanges. The growers own the entire enterprise. The local associations look after the picking, hauling, packing and loading of the members' fruit. The subexchanges are the forwarding agents of the local associations. The central exchange has charge of selling, collecting, advertising and kindred business.

The Farmers' Union of Maine was organized in 1912 as the result of a movement started by the Bureau of Markets and Supplies of the State Agricultural Department. A number of local associations were formed, and they in turn formed the central organization which is this Farmers' Union. The local associations now number over 70 and one or more of them represent every county in the State. A local association is affiliated to the central organization by buying one or more \$10 shares.

In 1912 the local unions began to consign potatoes and in that season consigned about 250 carloads of them.

There was a demand among the farmers for such supplies as grain, flour and fodder, and the manager of the union was able to organize, in order to meet it, the Farmers' Union Grain and Supply Company. This company had a turnover of \$250,000 last year. In the autumn of 1915 the local unions voted in favour of buying the private wholesale house, each of them giving its note for \$500. It is estimated that the saving effected will pay the interest and allow the notes to be withdrawn in about five years.

The Farmers' Union has effected a saving to farmers in the matter of contracting for fertilizers. The local unions have erected 23 warehouses, 25 grain stores, 3 grocery stores and a gristmill. The erection of a flour-mill and a wholesale grocery house is contemplated. The gross turnover was \$324,000 in 1912-1913 and \$800,000 in 1914-1915.

The Litchfield Dairy Association, Michigan, was founded in the winter of 1910-1911 because the suppliers of the local creamery were dissatisfied with the prices paid to them for butter fat. They therefore bought the creamery which has since been conducted co-operatively. The annual volume of business has increased from 125,000 to 600,000 pounds of butter. The creamery has now about 600 suppliers to whose co-operation its success has been largely due. It has been helped also by good markets, modern equipment and efficient management. .

Encouraged by the success of the creamery the farmers interested in it organized as a separate company the *Live Stock Shipping Association*. This has the same manager and has its business transacted in the same office as the creamery. Members consign their stock, which is graded and marked, on regular days and by carloads to the terminal markets. The money received for it, less the cost of handling it and a contribution to a small reserve fund, is paid to the members in proportion to the stock they have supplied.

The Minnesota Co-operative Dairies Associations was organized in the summer of 1907 to bring about better marketing conditions among Minnesota creameries. It is a capital stock company and the shares are held by a number of co-operative creameries. In 1908 it appointed an agent in Chicago to handle the butter consigned there, and in 1910 agents having similar duties in New York and Philadelphia. The agents became regular butter dealers in their respective markets, and this method of selling did not therefore differ materially from that commonly followed. It was the original plan of the association to have its own butter houses at the principal markets and sell the output of the member creameries through them. A distributing office was accordingly opened in New York in the summer of 1915. It is not yet possible to say how important its results will be.

The Ozark Fruit Growers' Association exists in Southern Missouri and North Kansas, and markets principally strawberries and peaches. A central association markets the fruit of a number of affiliated local associations. There are 500 members; the capital stock is \$2,000 divided into shares of \$1 each of which no member owns more than ten. Several hundred carloads of strawberries and peaches are marketed annually. The total volume of business transacted in 1915 was about \$600,000. The association has been successful in standardizing its products and making its brand known to the trade. A new venture is the use of various trade papers in order to advise the trade, by advertisements during the marketing season, of the association's output.

We have recently given a detailed account, to which we refer the reader, of the *Tillamook County Creamery Association* in Oregon (1).

The Eastern Shore of Virginia Produce Association was organized in 1900 in order to market the produce of the farmers in the two counties which form the Virginian part of the peninsula between Chesapeake Bay and the Atlantic Ocean. This is a truck-farming district: the chief crops are Irish and sweet potatoes, strawberries, cabbages and onions. The exchange markets the produce of about 3,000 farmers, that is about two thirds of the total output of the district in which it is active. Its annual business includes the sale of from 8,000 to 10,000 carloads of Irish potatoes, from 2,500 to 3,000 carloads of sweet potatoes, and from 100 to 300 carloads each of strawberries, onions and cabbages. The total annual volume of business is between five and six million dollars. The exchange deals with more than 1,300 wholesale buyers, distributed among some 50 towns in about 40 States and provinces.

The right to sell produce through the exchange can be procured by becoming a stockholder, or a tenant of a stockholder, or by buying a "shipping privilege" which costs \$1. The exchange has a central office, and there are from one to four loading stations in each of the 35 local divisions into which its territory is divided. Each local division elects a stockholder as director of the general board of directors. The board of directors has supervision over the exchange, but the work of management is mainly

(1) See our issue for December 1917, page 20.

left to the general manager and the secretary-treasurer. Each division elects a local agent to look after its work. There are also inspectors for each loading point who, in order to ensure efficient and uniform inspection, are chosen by the board of directors instead of the local growers. The central office keeps in touch with the local agent and thus ascertains the probable amounts which will be loaded at each point daily, and eventually the amounts actually loaded. Thus the central office can see that the proper cars are provided and find markets for the produce loaded. The local inspectors examine the produce as it is loaded, allow it to carry the exchange trade-mark if it is up to standard, and see that if otherwise it is loaded on a car of unmarked produce. The central office conducts sales and forwards their proceeds to the local agents, who make out checks for the growers. Payment is made within twenty-four hours of the delivery of the goods. The association can do business on this basis because a large surplus and good credit enable it to pay growers for all produce delivered but not sold. Its present surplus is about \$150,000, and this, together with its paid-up capital of \$42,000 gives it an ample working capital. Hereafter part of the net profits will be returned to the growers in proportion to the amount of business they have transacted with the association. Extensive use is made of the telegraph in effecting sales. Sales are generally made f. o. b. loading point, so that the buyer assumes the risk of delay and normal deterioration during transit. Other losses are borne by the association.

The expenses of the business are met by charging a 5 per cent. commission on the produce sold by the exchange and a 3 per cent. commission on a smaller quantity of produce, never more than a tenth of the whole, mainly not standardized and intended for neighbouring markets, which is handed over to selling agents.

This organization has brought about an intelligent distribution of its members' produce and has much enlarged the territory in which the produce of the district is marketed. The service of inspection has led to standardization.

In 1913, after a number of meetings of local farmers had been held, cheese producers' associations were organized at more than 40 of the cheese factories in Sheboygan county, in order to improve methods of marketing. These associations united to form the *Sheboygan County Cheese Producers' Federation*. In July 1913 the federation appointed a manager. All the available storage space was found however already to be engaged so that the federation could not at once become active. The *Federated Farmers' Warehouse Company* was therefore formed, and this company erected a warehouse fitted with cold-storage plant which was rented by the Cheese Producers' Federation early in 1914.

From 1 April to 31 December 1914 the federation handled 6,125,480 pounds of cheese, and in 1915 a larger amount.

(To be continued).

ITALY.

THE CATHOLIC RURAL FUNDS AND THEIR FEDERAL ORGANIZATION.

SOURCES:

- RIUNGO DELLE CASSE RURALI. — SOCIETÀ COOPERATIVE IN NOME COLLETTIVO E ALTRE PICCOLE COOPERATIVE DI CREDITO ESISTENTI NEL 1915 (*List of Rural Funds, Co-operative Societies Collective in Name, and other Small Co-operative Credit Societies existing in 1915*). Federazione italiana delle casse rurali. Parma, Cooperativa editrice, 1916.
- L'ORGANIZZAZIONE FEDERATIVA DELLE CASSE RURALI (*The Federal Organisation of the Rural Funds*), in «La Revisione obbligatoria delle Casse Rurali», by Dr. Ferdinando Buffetti. Federazione italiana delle Casse rurali. Rome, 1918.
- LA FEDERAZIONE ITALIANA DELLE CASSE RURALI DURANTE IL 1917 (*The Italian Federation of Rural Funds during 1917*), in «Cooperazione Popolare», Nos. 3 and 4, Rome, 28 February, 1918.
- RELAZIONE MORALE DELLA UNIONE ECONOMICO-SOCIALE NEL 1917 (*Report on the Moral Activity of the Economic and Social Union in 1917*), «Azione Sociale», No. 3, Faenza, 1-15 February 1918.
- ANNUAL REPORTS OF THE LOCAL FEDERATIONS OF CATHOLIC RURAL FUNDS.

We have already described the results, published in 1911 by the *Ufficio Nazionale del Lavoro*, of the enquiry into Catholic working-class organizations (1), and more recently we dealt with the organization of Catholic rural funds in the district of Lodi (2), and showed how important Catholic activities are in the sphere of rural co-operative credit. These activities have been extended in the direction indicated by the *Unione Economico-Sociale fra i Cattolici Italiani*, and by means of the energetic propaganda of numerous federations scattered over the provinces. A recent publication (3) gives interesting data as to these federations, and we think it will be useful to summarize it here.

§ I. NUMBER, GEOGRAPHICAL DISTRIBUTION AND CHARACTERISTICS OF THE CATHOLIC RURAL FUNDS.

According to a list of these societies, published in 1916 by the *Federazione Italiana delle Casse rurali*, there were in Italy, at the end of 1915, 2,002 Catholic funds, distributed among the provinces as follows:

(1) See our issues (*Monthly Bulletin of Economic and Social Intelligence*) for August and September 1912.

(2) See our issue for December 1916, page 30.

(3) Dr. FERDINANDO BUFFETTI: *Intorno ai progetti di tutela del risparmio e di vigilanza sulle cooperative. La revisione obbligatoria delle casse rurali*. Federazione italiana delle casse rurali. Rome, 1918.

ITALY - CO OPERATION AND ASSOCIATION

Alexandria	71	Messina	16
Ancona	28	Milan	24
Aquila	28	Modena	22
Arezzo	19	Naples	8
Ascoli Piceno	31	Novara	15
Avellino	8	Padua	62
Bari	11	Palermo	53
Belluno	6	Parma	44
Benevento	35	Pavia	13
Bergamo	78	Perugia	25
Bologna	93	Pesaro and Urbino	33
Brescia	43	Piacenza	7
Cagliari	5	Pisa	11
Caltanissetta	38	Port Maurice	43
Campobasso	5	Potenza	7
Caserta	12	Ravenna	51
Catania	39	Reggio di Calabria	11
Catanzaro	9	Reggio d'Emilia	34
Chieti	2	Rome	89
Como	19	Rovigo	54
Cosenza	34	Salerno	13
Cremona	20	Sassari	4
Cuneo	63	Siena	14
Ferrara	36	Syracuse	15
Florence	70	Sondrio	10
Foggia	4	Teramo	4
Forlì	40	Turin	39
Genoa	12	Trapani	21
Girgenti	58	Treviso	74
Grosseto	1	Udine	78
Lecce	15	Venice	23
Leghorn	6	Verona	96
Lucca	1	Vicenza	43
Macerata	6		
Mantua	20		
Massa and Carrara	1		
		Total	2,002

As appears from this table, the provinces having the largest number of these Church funds are Verona (96), Bologna (93), Rome (89), Udine (78), Bergamo (78), Treviso (74), Alexandria (71), Florence (70), Cuneo (63), and Padua (62).

A distribution according to districts gives the following figures:

NORTH ITALY.

<i>Piedmont</i> : Alexandria, Cuneo, Novara, Turin	188
<i>Liguria</i> : Genoa, Port-Maurice	16
<i>Lombardy</i> : Bergamo, Brescia, Como, Cremona, Mantua, Milan, Pavia, Sondrio	236
<i>Venetia</i> : Belluno, Padua, Rovigo, Treviso, Udine, Venice, Verona, Vicenza	436
<i>Emilia</i> : Bologna, Ferrara, Forlì, Modena, Parma, Piacenza, Ra- venna, Reggio d'Emilia	236
Total: North Italy . . .	1,212

CENTRAL ITALY.

<i>Tuscany</i> : Arezzo, Florence, Grosseto, Leghorn, Lucca, Massa Car- rara, Pisa, Siena	123
<i>Marches</i> : Ancona, Ascoli Piceno, Macerata, Pesaro, Urbino . .	98
<i>Latium</i> : Rome	89
<i>Umbria</i> : Perugia	25
Total: Central Italy . . .	335

SOUTH ITALY.

<i>Abruzzi and Molise</i> : Aquila, Campobasso, Chieti, Teramo . .	30
<i>Campagna</i> : Avellino, Benevento, Caserta, Naples, Salerno . .	76
<i>Apulia</i> : Bari, Foggia, Lecce	30
<i>Basilicata</i> : Potenza	7
<i>Calabria</i> : Catanzaro, Cosenza, Reggio di Calabria	54
Total: South Italy . . .	206

INSULAR ITALY.

<i>Sicily</i> : Caltanissetta, Catana, Girgenti, Messina, Palermo, Syra- cuse, Trapani	240
<i>Sardinia</i> : Cagliari, Sassari	9
Total: Insular Italy . . .	249
General Total . . .	2,002

Catholic rural funds are therefore particularly common in Venetia, Emilia, Lombardy (Bergamesque) and Sicily.

They are based on two fundamental principles: collective and unlimited liability and the religious profession of their members. To these

other secondary principles, intimately connected with them, must be added; namely the absence of share capital, the limitation of the activity of each fund to a fixed territory, the indivisibility of profits and of the societies' funds, the absence of charges. Since the capital of these funds is very small, being generally made up of the small fees paid by members when they are enrolled, and since the reserves, into which annual profits are paid almost in their entirety, are also small, the funds usually take the sums needed to make loans from the savings deposits which they receive from depositors who may or may not be members of the societies, or, if these deposits are inadequate, they procure the necessary sums from banks and other establishments.

The by-laws of these funds show that if their chief end is to make loans to their members, on the basis of their well known technical organization, they often have as a second aim the improvement of the economic condition of these members (1). Sometimes the trade of these is concerned, as when the funds endeavour to protect them as labourers and help them when they are brought into relation with other classes of the population; sometimes the funds seek to procure other economic advantages for them, as when they take collective farms for them, buy articles necessary to agriculture as supplies for them, organize the insurance of their live stock, etc. These various functions are sometimes undertaken by a fund directly, but sometimes they are the occasion for forming special annexed institutions, such as agricultural leagues, collective farms, rural unions, mutual live stock societies, etc.

Besides these economic functions, the funds set before themselves as a general aim the intellectual and moral improvement of their members. To attain it they often initiate educational enterprise on behalf of their members, organize lectures on general subjects or on agricultural improvements, give readings, found libraries.

The circumstance that these institutions are connected with the Church is usually very marked. It is stated in the by-laws and is not only that element in their constitutions which gives the societies their form and their moral duties, but also the basis considered necessary to secure that a fund works well and economically. Some by-laws require a religious profession as a condition for admitting members and others impose religious obligations on members. In others this religious character is merely indicated as the principle on which the institution concerned is based, and in yet others there is no question of it.

§ 2. THE FEDERAL ORGANIZATION OF THE CATHOLIC RURAL FUNDS.

From the time when the movement in favour of small rural credit began, the Catholics took care of the working of the rural funds, as re-

(1) See in this connection *Le Organizzazioni Operaie Cattoliche in Italia*. Appendix: *Le Organizzazioni di Cooperazione, Mutualità e Credito*. Ministero di Agricoltura, Industria e Commercio, Direzione Generale della Statistica e del Lavoro. Ufficio del Lavoro. Rome, 1911.

garded their administration, legal affairs and book-keeping. They applied the most various methods, but in particular they grouped the funds in federations which aimed at propaganda, protection and supervision. Thus while the first Catholic rural funds arose in Italy in 1892, the first federation, which united the fifty-two funds of the diocese of Treviso, was formed in 1894. This example was soon followed at the principal centres whence the movement spread. Towards the end of 1894 and in the beginning of 1895 the funds of the dioceses of Adria, Verona, Vicenza, Bergamo and Alba, and then those of Tortona, Casal and Aosta, united in as many federations.

Today there are thirty-four regional, provincial or diocesan funds. Their headquarters are at Turin, Mondovì, Asti, Aosta and Tortona; Bergamo, Brescia, Milan and Lodi; Treviso, Rovigo and Udine; Parma and Reggio d'Emilia; Bologna; Faenza, Forlì and Ferrara; Florence, Pistoia and Arezzo; Fano, Senigallia, Fermo and Amatrice; Rome; Cosenza, Benevento, Salerno, Ripatransone, Reggio di Calabria, Palermo, Caltanissetta and Catania.

Scattered all over Italy, these federations group about half the existing rural funds. They are supported principally by the contributions of their adherent funds and they have their offices and inspectors.

In addition to their general aims, in accordance with which they co-ordinate and represent the federated societies, they usually have a banking department. They concentrate capital, furnish credit, and in general exercise the functions of an inspectorate of the funds. Where federations having these funds do not truly and properly speaking exist, the funds almost always belong to more important credit institutions, which afford them credit, receive their deposits, and undertake the inspection and supervision which they require.

All these federations are in their turn attached to the *Federazione Italiana delle Casse Rurali Cattoliche*, which was formed in 1909 on the initiative of the *Unione Economico Sociale* and has its offices in Rome. This federation supervises them, gives them the instructions as to technique which are in any given case required, undertakes general propaganda, studies matters of law and taxation which affect rural co-operative credit, and gives an account of its activity in a monthly paper, the *Cooperazione Popolare*.

We will now survey the chief Catholic federations, grouping them geographically:

1) *Piedmontese Group*. — The rural funds of Piedmont have a district federation which has its offices at Turin and was legally constituted in 1911 as a joint stock co-operative society.

It groups 125 funds and its working, which is regular, is supported by the *Federazione Agricola Torinese*. In some dioceses there are local federations, among them that of Mondovì which was founded in 1904 and has always undertaken the supervision and assistance of its nineteen federated funds. There are also the federations of Asti, Aosta and Tortona.

2) *Lombard Group*. — This group comprises four federations, the chief of them being that in the province of Bergamo to which seventy societies conducting rural and popular funds adhere. The societies having funds of these two kinds are differentiated: in the case of rural funds members are free to save or not; in that of popular funds they are obliged to save, a weekly minimum of saving being fixed in the by-laws. The former are found in agricultural centres, the latter in places where industry is prevalent and trade most active. This federation inspects its federated institutions, helping them to make out their monthly statements of accounts and yearly balance-sheets. In order to train good book-keepers and administrators it often organizes courses of technical and legal instruction.

In the same district there are the Federation of Brescia, which was founded in 1896 and now comprises twenty-four rural funds, the Federation of Milan which unites about twenty rural funds and gives well organized help in book-keeping, legal matters and administration to its adherent societies, and finally the Diocesan Federation of Lodi which unites 12 funds (1).

3) *Venetian Group*. — As is the case with the funds, the federations of Venetia in which the movement for the organization of rural co-operative credit began are among the oldest. We must mention first the Federation of Treviso, with its thirty-two rural funds, which was founded in 1894 and which has been for years among the most active and enterprising. Its organ, the *Vita del Popolo*, has been an effective instrument of propaganda in favour of the spread of Venetian rural funds. Its working has a solid financial basis supplied by the contributions of the federated funds and the grants of the *Banca Cattolica San Liberale* of Treviso. According to its by-laws its directing council must send one member to inspect such funds as ask to be inspected. Its activity continued to be regularly exercised until October 1917.

In May 1895 there was constituted at Lendinara in the province of Rovigo a federation of the economic and social associations in the diocese of Adria as to which Signor Micheli spoke as follows (2) in 1898: "The activity of this federation is extraordinary. It has inspectors whose task it is to supervise the book-keeping of the funds. It affords credit to the funds and facilitates their operations in the courts. On several occasions it has, in doubtful cases, taken the opinion of the ministry. It has a special office and an employee who are at the disposal of the federated institutions, for which from its first foundation it has conducted a department for collective purchases. Once or twice a year all the cashiers and book-keepers of the funds are gathered together and clearly instructed as to the easiest and surest way of keeping accounts and books. The Central Fund

(1) For further information as to this federation see: VIGORELLI (Dr. Remo), *La cooperazione rurale di credito nel Lodigiano*. Lodi, Biancardi, 1916.

(2) GIUSEPPE MICHELI: *Le Casse Rurali Italiane*, Parma, Cooperazione Popolare, 1898.

of Parma and the other banks do not open current accounts for the diocesan funds except by the medium of the federation ”.

The activity which began so well has continued to the present time. Inspections are made at regular intervals, and at the same time courses have been organized for the training of secretary-bookkeepers.

The federations of Padua and Udine should also be mentioned. The latter was formed on 10 May 1917 on the initiative of the local Catholic bank. Sixteen funds adhere to it.

4) *Emilian Group*. — This group comprises the federations of Parma, Reggio d'Emilia, Bologna, Ferrara, Faenza (1) and Forlì. The most important and best organized of them is the *Federazione delle Casse Rurali e Popolari della Provincia di Bologna* which was founded in 1904 and groups 89 funds having altogether 7,268 members. The following are some data as to this federation :

	on 31 October		
	1911	1915	1916
Number of federated funds .	83	86	88
Number of enrolled members .	7,385	7,541	7,617
<i>Assets.</i>			
	Liras	Liras	Liras
Loans to members	1,870,065.74	1,810,060.95	1,581,904.68
Securities	573,565.74	708,682.33	1,067,237.34
Deposits on current credit account	863,138.91	982,745.64	1,903,131.77
Cash, merchandise and various assets	198,864.90	221,646.68	336,088.39
	3,505,635.28	3,723,135.60	4,888,362.18
Interest debited and costs for 10 months	106,606.98	110,691.64	130,208.02
	3,612,296.26	3,833,827.24	5,018,570.20

(1) For the *Federazione delle Casse Rurali e Società Cooperative della Romagna* (Federation of Rural Funds and Co-operative Societies of Romagna), see VINCENZO GABRIOTTI: *La Cooperazione di Credito nella Romagna Centrale* Bagnacavallo, 1911.

Liabilities.

	liras	liras	liras
Trust deposits	3,276,908.17	3,455,818.73	4,649,820.76
Current debit accounts . .	60,122.85	57,667.31	17,376.33
Interest not due and various liabilities	24,810.77	42,771.98	40,645.05
	3,361,841.79	3,556,258.02	4,707,842.14
Society's capital	125,528.37	147,315.14	167,788.97
	3,487,370.16	3,703,573.16	4,875,631.11
Interest credited and profits for 10 months	124,926.10	130,254.08	142,939.01
	3,612,296.26	3,833,827.24	5,018,570.20

In 1904 the federated funds numbered twenty-nine and had 2,044 members, a capital of 12,674 liras, trust deposits for 368,292 liras, loans to members for 308,157 liras, deposits on current credit account for 83,781 liras, securities for 20,941 liras, and 113,581 liras in cash, merchandise and various assets. The progress which this federation has realized is therefore truly noteworthy (1).

Its working has always been regular. In order better to fulfil its task it unified the by-laws and administrative and book-keeping systems of its federated funds, and for this end supplied them with the necessary forms and books of which it has an important store.

In order to supervise its affiliated societies it revises their deeds and documents, and inspects them on the principles contained in a special guide, known as the *Guida per le Ispezioni alle Casse Rurali* and drawn up by its secretary.

A special committee has the duty of advising and supervising the funds as to investing any sums in excess of the amount they need. These sums are generally used to buy securities or titles.

The federation also holds courses in bookkeeping for the secretaries of co-operative societies. In 1907 it organized a congress of the rural funds of Emilia and Romagna. It acquired legal form in 1917.

5) *Tuscan Group*. — Almost all the rural funds of Tuscany are organized. They adhere to the Interprovincial Fund of Florence, which extends its activity over a large number of funds in the provinces of Florence, Pisa, Siena and Grosseto and to the diocesan federations of Pis-

(1) For more data as to this federation see, in addition to its annual reports, the single issue which it published on 1 May 1914 on the occasion of the fourth federal fête of the rural and popular funds of the province of Bologna.

toia and Arezzo. In the other provinces the number of funds is somewhat restricted.

6) *The Federations of Adriatic Central Italy.* — All these federations are of recent date. They have their respective offices at Fano, Senigallia, Fermo and Amatrice. The federation at Amatrice was founded in 1911 and is active in the eleven communes of the *circondario* of Cittaducale in the province of Aquila. It annually exercises its functions as an inspector which have contributed to ensuring the regular administration and book-keeping of its adherent funds.

7) *Southern Group.* — Of late the South has been the object of special care on the part of the directors of Catholic activity in Italy. The *Federazione Italiana delle Casse Rurali* had confided the supervision of small rural credit to the institution, then in existence, which was called *Credito Centrale del Lazio* and which carried on in several centres a truly useful work. It was founded in 1909 and became active on 1 January 1910 as a federation and a central fund. Its aim was, according to its by-laws, to "develop and promote the Catholic institutions for small credit in Rome and Latium and to indicate to them the path they should follow". The Catholic economic institutions of Latium could become members of this institution and had a right to obtain credit and advice from it. The administrative council annually nominated a consultative committee made up of two or three persons who were responsible for supplying the technical and legal information necessary to their working to the *Credito Centrale* and the societies associated with it and to visit these societies. Inspections had to take place every year. The federative work of the *Credito Centrale* was intensively carried on until 1917. The *Federazione Laziale delle Casse Rurali e Operaie* was then constituted as a co-operative joint stock society by a deed of 27 June 1917, and its regular activity has continued.

There are federations belonging to the same group. They are the Federation of Cosenza which was founded in 1902 and now groups 41 funds; those of Benevento and Salerno, both founded in 1916; that of Ripatransone, founded in 1917; and that of Reggio di Calabria which was founded in 1915 to group the eight rural funds of the five dioceses of the province. This last federation has introduced a uniform method of book-keeping into all its funds. Since a further need was felt for a central financial institution, a *Cassa Centrale Federativa* was constituted at Reggio by a deed of 19 July 1916. It has been working for a year in a satisfactory manner. The federated funds are now twelve in number, and others are in course of formation as a consequence of the propaganda work, extending into the province of Catanzaro, of the federation.

8) *Sicilian Group.* — The funds of Sicily are attached not only to the diocesan federations but also to a district organization, the *Segretariato Regionale Siciliano per le Opere Economico-Sociali* (1) which belongs to the Sicilian Regional Catholic Union. This Secretariat was founded

(1) Sicilian Regional Secretariat for Economico-Social Works.

at the Regional Congress of Catana on 5 October 1908, and has been working regularly for several years, thanks to the services rendered by the inspectors. It desires, among other aims, "to co-ordinate, by means of opportune guidance and the application of practical rules, the plans and the activity of the institutions; to promote the formation of provincial federations; to supervise, by means of the foundation of an inspectorate and of a right of inspection over all adherent institutions, their economic and moral activity, and the maintenance of their fundamentally religious character and of their spirit of true co-operation; to help and to protect the adherent institutions when these meet with difficulties in their relations with the Treasury or individuals, forming for them, as much as possible, an office of consultation and advice".

As regards federations, there are now in Sicily four of these, having their respective headquarters at Palermo, Caltanissetta, Catana and Girgenti. The federation of Girgenti was formed in April 1899, and received in 1910 a well defined constitution, by-laws approved by the bishop, a president, a secretary and a federal council. It directed the co-operative movement by means of its agents of propaganda who also acted as inspectors, and by means of the meetings of federal delegates which it held frequently. Having acquired legal form it founded two federal sections in the districts of Bivona and Sciacca. The services which the federation has rendered are familiar. It has afforded advice, protection and supervision and made collective purchases.

To complete these notes we give in the Table on page 201 some data as to the situation of the local federations of Catholic rural funds on 31 December 1916.

As has been said, these federations are in their turn attached to the *Federazione Italiana delle Casse Rurali* which on 31 December 1916 represented 1,049 funds comprising 114,158 members. This federation is an integral part of the *Unione Economico-Sociale fra i Cattolici Italiani* which is the great co-ordinating and directing centre of all the economic and social organizations and institutions of Catholics in Italy.

Situation of local federations of Catholic rural funds on 31 December 1916.

Order	Federations	Number of federated funds	of mem- bers	Capital		Trust deposits		Loans		Deposits in banks		State securities		Cash		Various assets		Various liabilities	
				lira	lira	lira	lira	lira	lira	lira	lira	lira	lira	lira	lira	lira	lira	lira	
1	Amatrice	6	2,376	55,037.95	1,129,317.11	863,381.50	94,747.33	135,000.00	—	83.79	164,171.06	—	3,307.99	—	89,365.95	—	—	—	—
2	Aosta	7	351	388,210.12	1,000,075.48	164,517.48	100,075.48	118,775.90	—	20.82	—	—	20,641.30	—	—	—	—	—	—
3	Arezzo	15	1,894	18,211.98	1,032,108.56	480,570.79	116,936.07	134,137.49	—	46,120.19	183,416.90	—	105,245.95	—	138,496.06	—	—	—	—
4	Asi	7	393	17,761.27	1,460,509.53	474,384.17	319,980.61	245.35	—	6,207.85	21,008.11	—	—	—	269,139.71	—	—	—	—
5	Benevento (1)	7	357	39,916.55	1,127,759.46	837,410.84	137,286.40	63,136.02	—	54,486.71	67,972.61	—	—	—	152,666.37	—	—	—	—
6	Bergamo	70	7,113	279,393.61	8,217,495.92	3,564,255.95	2,993,168.15	1,206,491.80	—	51,055.97	67,972.61	—	—	—	273,970.30	—	—	—	—
7	Bologna	59	7,028	106,424.31	4,957,731.06	1,531,662.14	2,389,433.34	1,114,571.61	—	112,900.89	141,449.90	—	—	—	313,333.37	—	—	—	—
8	Brescia	54	8,461	120,458.85	4,187,684.33	2,118,268.23	993,632.67	616,939.08	—	112,926.96	331,336.00	—	—	—	333,333.37	—	—	—	—
9	Casazza	21	2,760	96,881.05	6,719,454.56	4,393,572.12	2,401,994.76	616,939.08	—	112,926.96	331,336.00	—	—	—	333,333.37	—	—	—	—
10	Casazza	54	5,294	149,204.08	4,869,411.95	1,990,264.02	2,294,215.56	616,939.08	—	112,926.96	331,336.00	—	—	—	333,333.37	—	—	—	—
11	Fano	10	1,683	8,248.01	434,615.06	239,625.88	17,836.90	689,045.78	—	—	—	—	—	—	173,856.48	—	—	—	—
12	Fermo	16	2,948	121,426.62	2,677,163.38	2,396,895.47	515,012.49	187,196.43	—	106,012.24	20,641.30	—	—	—	292,474.30	—	—	—	—
13	Ferrara	36	3,894	81,509.13	1,839,095.68	934,098.17	912,492.14	934,872.21	—	56,011.03	105,245.95	—	—	—	121,851.01	—	—	—	—
14	Firenze	29	4,181	49,155.86	1,527,216.04	801,066.60	568,470.90	85,537.95	—	—	44,313.09	—	—	—	45,581.01	—	—	—	—
15	Forlì	33	3,274	57,934.05	1,270,177.43	815,985.65	488,445.42	9,972.47	—	45,754.74	20,164.23	—	—	—	32,866.21	—	—	—	—
16	Lodi	12	1,512	17,144.77	980,015.95	397,116.01	463,719.43	107,546.70	—	—	6,728.13	—	—	—	—	—	—	—	—
17	Mazzara del Vallo	20	2,129	66,648.90	47,973.74	587,442.75	—	—	—	—	—	—	—	—	—	—	—	—	—
18	Milan (2)	18	2,024	49,044.40	1,687,630.05	466,183.01	522,804.63	—	—	—	307,011.03	—	—	—	33,766.38	—	—	—	—
19	Mondovì	19	2,136	31,400.95	1,803,480.65	962,533.93	1,052,701.70	800,102.84	—	43,464.70	28,436.62	—	—	—	132,081.65	—	—	—	—
20	Palermo (2)	82	5,246	226,793.35	5,236,247.45	3,657,601.37	2,590,542.30	1,054,701.70	—	—	634,675.11	—	—	—	152,900.94	—	—	—	—
21	Parma	45	3,887	230,753.13	5,771,385.77	2,898,556.47	2,590,542.30	1,054,701.70	—	—	434,724.56	—	—	—	210,103.11	—	—	—	—
22	Pavia	40	4,407	92,104.59	2,407,101.25	1,894,231.46	360,927.47	117,093.06	—	—	90,961.06	—	—	—	229,334.99	—	—	—	—
23	Reggio di Calabria	4	496	9,650.75	165,065.57	128,571.45	19,110.15	12,070.40	—	—	1,134.59	—	—	—	5,000.00	—	—	—	—
24	Reggio d'Emilia	26	2,897	103,843.26	3,191,581.14	2,569,248.83	439,156.82	—	—	—	440,160.26	—	—	—	139,615.30	—	—	—	—
25	Ravenna	52	10,155	302,834.47	2,737,688.48	2,311,840.18	473,847.14	—	—	—	43,189.32	—	—	—	379,953.39	—	—	—	—
26	Ravenna (2)	52	3,881	158,479.76	4,737,288.05	1,531,364.43	2,063,683.37	1,054,701.70	—	—	194,416.30	—	—	—	799,277.33	—	—	—	—
27	Salerno (2)	56	1,999	217,011.80	3,161,031.12	1,933,600.15	2,063,683.37	1,054,701.70	—	—	344,069.51	—	—	—	344,069.51	—	—	—	—
28	Salerno (2)	8	1,644	3,469.04	99,396.05	8,424,361.04	3,243,031.42	300.00	—	—	993.00	—	—	—	2,436.92	—	—	—	—
29	Santhià	123	10,777	385,503.41	11,405,519.59	8,242,361.04	3,243,031.42	300.00	—	—	2,060,109.18	—	—	—	3,339,421.18	—	—	—	—
30	Torona	7	476	101,123.37	2,416,673.33	1,087,207.71	1,087,207.71	12,903.81	—	—	476,006.01	—	—	—	764,144.77	—	—	—	—
31	Trivento	32	5,176	113,333.51	3,419,682.79	1,833,643.35	1,300,554.88	—	—	—	476,006.01	—	—	—	43,464.70	—	—	—	—
32	Udine	16	2,185	4,491.73	1,448,505.71	608,700.56	597,755.99	—	—	—	164,868.43	—	—	—	177,237.84	—	—	—	—
33	Isolated funds	17	5,800	169,157.41	4,066,661.05	1,392,232.19	857,217.34	—	—	—	206,832.80	—	—	—	49,015.31	—	—	—	—
Total				3,437,680.19	87,760,280.33	51,456,480.23	28,105,827.71	5,870,113.71	—	1,659,045.99	71,284,436.80	—	—	—	5,656,127.67	—	—	—	—

(1) *Federazione di Benevento*. This organization, when it had acquired legal form in 1916, asked the funds again to join it regularly. On 31 December 1916 only 7 funds had rejoined; in the case of the others the process was in course. This is why only 7 funds of this federation appear in the table. — (2) The data as to this federation refer to 1915 for it communicated no data as to 1916.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

BELGIUM.

THE BOERENBOND IN 1916. -- *La Réforme Sociale*, Paris, 1-6 March 1918.

The *Réforme Sociale* resumes as follows the report presented to the general meeting of the *Boerenbond* on 28 May 1917 by Canon Luytgeens:

In 1916 the *Boerenbond* attempted to assist not only agriculturists but the entire Belgian population. The inspectors never ceased to visit as often as possible the agricultural guilds and the sections of these in districts in which military occupation did not prevent their ingress. They thus kept in touch with the rural population, encouraged and advised them, and heard their grievances and complaints in order to transmit these to the proper quarters. Often they had the satisfaction of drawing the attention of the occupying power to circumstances which were worthy of interest. At the same time they supplied members of the *Boerenbond* with valuable information as to multiple measures and ordinances so complex that they might involve farmers in serious difficulties.

Where material interests were concerned, the association endeavoured to ensure that the farmer should have a sufficiency of concentrated foods to feed his live stock and the manures essential to the maintenance of his crops in the districts which have suffered most. It also did everything possible to obtain that the requisition of harvested grain should be well regulated and that there should be a good supply of seed for the autumn sowing, a particularly difficult undertaking owing to the insufficiency of the previous harvest and the poor quality of the grain harvested in most districts. Later, when a new tax had been laid on agricultural profits which would have heavily burdened farmers, especially small holders, the *Boerenbond* felt it incumbent on itself to ask for the necessary alleviations for small holders. Finally, to defend agricultural producers against the accusation of having made use of the existing circumstances in order to realize excessive profits by charging unduly high prices, the association's council of management circulated throughout the country a manifesto which made the state of affairs clear and showed the injustice of imputing to all farmers, without distinction, a fault which has been committed only by a small number of speculators who had forgotten both their duty and their interest.

The following are the chief general measures which were put in practice.

The particular activity of each group comprised in the association's framework did not lessen. Agricultural unions, the farmers' league, the horticulturists' federation, the purchase and sales counter, the inspectorate of dairies, the central credit fund, the inspectorate of rural guilds and funds, all worked with perfect regularity and with the maximum result possible in the existing circumstances.

The activity of the central credit fund was especially important, 1916 being a most important year of its existence. The continuous increase of new affiliations and the considerable influx of savings deposits were particularly striking. Thus 44 new funds were affiliated in 1915 and 48 in 1916, and the total sum of deposits which increased by six million francs in 1915 did so by sixteen million francs in 1916. Of the 873 rural funds which now exist in Belgium (as against only 777 at the outbreak of war) 485 are attached to the central fund. Moreover the central fund's capital increased by 308 members' shares, so that these numbered 9,370 on 31 December 1916, and its guarantee capital was brought up to 9,370,000 francs. As to the circulation of funds, this in 1913, the last normal year, did not exceed 49,766,292 francs, but reached 63,009,921 francs in 1915, and in 1916 — to the surprise of the management itself — 101,667,430 francs. At the same time the total amount of savings deposits was 38,698,018 francs on 31 December 1916, as against only 16,110,371 francs at the end of 1913.

The compiler of the report considers that this increase, which was truly extraordinary in view of the country's circumstances, was due to the large profits which the high prices of produce and reduction of farming capital allowed farmers to realize. "There is no doubt", he says, "that the lack of chemical manures caused a considerable economy, and it is no less certain that the exhausted soil will later be in need of the fertilizing elements which have been taken from it. The famine in concentrated foods was an even more abundant source of saving; but the effects of the intrinsic depreciation of stock and its reaction on dairy production will long be felt; and if farmers who were obliged to rid themselves of their beasts received high prices for them they were, on the other hand, compelled to fill their places when prices had not fallen. Every requisition took away many horses and swelled the farmers' savings; but a farmer cannot do without horses, and will be obliged, after the war, to procure others, and doubtless at exorbitant prices".

Thus all the deductions made from the figures do not give cause for rejoicing. It is none the less true that in the midst of the crisis through which they are passing the Belgians are showing a quite remarkable spirit of thrift, and that the influx of saved capital does credit to the central fund which owes the larger part of its success to the confidence it inspires and to its wise management. While most financial establishments have been led by circumstances to lower the rate of interest they pay on deposits, the central fund has been able continuously to keep this rate at 3 per cent. on deposits at sight, and thus has provided an investment, equally remunerative and safe, for savings, and justified its reputation among local funds and individuals.

BRITISH COLONIES

THE ANTIGUA ONION GROWERS' ASSOCIATION. — *Agricultural News*, vol. XVI, No. 406, Barbados, 17 November 1917.

The Antigua Onion Growers' Association, which we noticed in a previous number of this review (1), was in a flourishing condition in 1916-1917.

The onion crops of members were paid for at the rate of 10. per pound as soon as deliveries had been made at the association's premises. Afterwards the onions were cured, graded, packed and marketed by the association. After working expenses and a payment of 3 per cent. to the association's general fund had been deducted, profits were distributed among the members in proportion to the quantity of onions each of them had delivered.

During 1916-1917 some thirty-four estates contributed their produce to the undertaking, and the total weight of the produce received at the association's premises was 302,968 lbs.

The total number of the crates shipped by the association was 5,664 as against 5,353 in 1915-1916, the increase in the year being thus one of 311. This constitutes a record. Shipments were made to New York, Trinidad, Martinique, Demerara, Canada, Barbados, St. Lucia, Grenada and St. Vincent. As the total number of crates of onions shipped from Antigua in 1916-1917 was 6,940, it is seen that 82 per cent. of the total crops was handled by the association. When all expenses had been paid the total sum available for distribution among growers was £1,855 9s. or 294c. for every 100 pounds of onions delivered. In 1915-16 the distribution was at the rate of 88 ½c. per 100 lbs. of delivered onions, in 1914-15 at that of 51 ½c.

All onion growers on the island with two exceptions are members of the association.

CANADA.

VEGETABLE GARDENING ON VACANT LOTS OF URBAN AND SUBURBAN LAND.
— *The Canadian Horticulturist*, Toronto, November 1917.

The cultivation of vacant land near centres of population was first practised on the American continent in Philadelphia in 1896 and it met with a great success. Everywhere the exploitation of land of this kind has been stimulated by the European war, and it has notably contributed to increase the total amount of garden produce.

The example of Philadelphia was followed in other towns in the United States and in Canada. Toronto now possesses a flourishing organization, called the Toronto Vacant Lots Cultivation Association, which co-operates with the Rotary Club of Toronto.

(1) See our issue for January 1917, page 16.

The association was founded in 1914 when it was holder of 75 gardens. It had 800 gardens in 1917 and anticipated that it would have 1500 this year. It consists of a president, two vice-presidents, a treasurer, a secretary, a superintendent and fifteen directors; and it is supported by voluntary contributions. It secures unemployed land from its owners, manures, ploughs and harrows it, and then hands it over to citizens who promise to cultivate it thoroughly, providing them moreover with fourteen varieties of seeds. A lot holder pays only \$1 a year for all these privileges. The superintendent arranges for the ploughing and allotting of the sections, and also gives demonstrations of the best methods of cultivation. The various district Ratepayers' Associations give prizes for produce and for the best kept gardens. The Toronto Horticultural Society threw its annual September exhibition open to the city in 1917. Of the \$350 it gave as prizes, no less than \$250 were won by the lot holders of the Toronto Vacant Lots Association.

Of the 800 gardeners of vacant lots 80 were discharged soldiers, some of them badly crippled.

Each lot has an area of from 3,500 to 6,000 square feet. Some gardeners realize a profit of as much as \$150, very few less than \$25. The average return is about \$50, which means a total of about \$40,000. The cost to the association has been about \$5.50 a lot.

The lots have done much to keep down the price of vegetables. It is believed that they will also help the "back to the land" movement, for several holders have already signified their intention of taking up land for themselves.

GREAT BRITAIN AND IRELAND.

1. THE IRISH AGRICULTURAL ORGANIZATION SOCIETY IN 1917. — *Daily Business*, Vol. III, No. 2, Dublin, February 1918.

The year 1916 was one of particular success for the Irish Agricultural Organization Society.

The number of adherent societies fell from 991 to 958, but the total membership, on the other hand, was increased by 3,701. The decline in the number of societies is explained by the fact that fifty pig and cattle supply societies in County Wexford were struck off the list because they did not keep accounts.

A. Producers' Societies. — The creameries, which keep their lead among co-operative enterprises in Ireland, slowly but steadily increased during 1916. Some of them have taken to cheesemaking, which has the advantage of not penalizing the neglect of winter dairy-work as does buttermaking.

The number of existing co-operative creameries might be further increased a) by rendering the existing proprietary dairies co-operative, and b) by changing the system of agriculture in the large grazing districts of

Meath, Westmeath and Kildare. It is possible that dairy farming will be extended in these counties as a consequence of the tillage orders.

The great need of the co-operative creameries is for a strong central trading organization.

The agricultural societies are affected by the circumstance that the Irish Agricultural Organization Society receives a grant from the Development Commissioners which subjects it to some government control, directed rather to the advancement of trading societies than to that of the general welfare of the rural population. In this way the central society is forbidden to organize the so-called "stores", that is the societies supplying domestic necessities, and may not engage in a large propaganda for rendering rural trade generally co-operative. The local agricultural societies can still organize stores themselves after they have been founded. There is among co-operators a desire that there should be no restriction on the organization of stores. The general meeting of the Irish Agricultural Organization Society, held in December 1917, stated in a resolution that stores were particularly important 1) because they allowed labourers as well as farmers to benefit by co-operation; 2) because they organized country producers as consumers, and thus encouraged a feeling of solidarity among producers and consumers and tended to bridge the gulf between dwellers in towns and the country; 3) because their business, since they dealt in articles of general consumption, continued throughout the year, and therefore the agricultural societies maintaining them could employ a permanent paid secretary; 4) because economical distribution becomes more and more important as prices rise; and 5) because stores can be organized in towns and thus benefit town labourers.

Like the creameries the agricultural societies have, since they were first founded, increased in number; but such increase has, as the following figures show, been in their case irregular.

Year	No. of Agricultural Societies	No. of Creameries	Proportion of Agricultural Societies to Creameries
1896	38	53	40.60 per cent.
1899	91	171	32.60 " "
1904	130	209	33.60 " "
1908	166	292	38.60 " "
1911	171	326	31.60 " "
1915	219	344	38.60 " "
1916	234	346	41.60 " "

It is seen that in 1916 the agricultural societies increased proportionately more than the creameries. This is partly because economical distribution was made more than ever important by the high price of groceries and other domestic necessities, and partly because there is an inevitable limit to the possible number of co-operative creameries unless conditions of farming and ownership be modified.

The poultry societies decreased by one in 1916 but did good work.

The flax societies were active in the matter of the government's methods in regard to the sale of flax which aroused much dissatisfaction. Twenty-five of these societies held a conference in Belfast at which they passed a number of resolutions relating to the production of flax, and these resolutions were adopted by the general meeting of the Irish Agricultural Organization Society.

As before, a couple of societies made bacon-curing their principal business in 1916, and several developed curing on a small scale for home consumption. This industry is however said to be endangered by the Food Control Orders.

We have already given detailed accounts of co-operative fishing societies (1) and of the co-operative wheat growing society at Foynes (2).

B. *Credit Societies*. — In the last few years the number of co-operative credit societies has declined as is shown by the following figures:

Year	No. of Credit Societies	Year	No. of Credit Societies
1908	268	1913	235
1909	234	1914	233
1910	237	1915	225
1911	236	1916	224
1912	234		

Of the 224 societies existing in 1916 only 116 furnished returns. The Central Co-operative Credit Society appears to be making no progress.

The considerable fall in the number of societies since 1914 is ascribed to the fact that both the Department of Agriculture and the Congested Districts Board have recalled their loans. That this should cause the decline would seem to show that all the credit societies had not taken deep root in the soil. Such as have subsisted have steadily increased their business and become more stable; and it may be that those which have lapsed either were defectively managed or else supplied no serious need. Among the causes suggested for their disappearance are the following; 1) the creameries have absorbed a large share of the ability of rural Ireland; 2) the joint stock banks have branches in every country town in Ireland, and have made it easy for the more prosperous farmers to do without co-operative credit; 3) in some cases the co-operative rural banks have fulfilled their mission and their beneficiaries are no longer in need of credit; 4) throughout a large part of Ireland farmers, while they have improved their methods to some extent, have not yet realized that they need capital in order to effect further developments; 5) the deposit side of banking has been comparatively neglected in Ireland.

(1) See our issue for December 1917, page 9.

(2) See our issue for July 1917, page 21.

In the future Irish farming is likely to need more capital. The shortage of imported foods will necessitate both an increase of the area under tillage, and more intensive agriculture involving the use of artificial manures and — in default of labour — of machinery. Artificial manures machinery and imported foods for live stock are likely to be expensive. The joint-stock banks may supply the resultant needs for credit or it may be met by the State. But if the joint-stock banks are inadequate to the occasion, and if there is a desire to escape the restrictions which generally accompany State grants, there may be a revival of co-operative credit.

C. Finance. — The apparent total turnover of the societies in 1916 was £6,099,880 and in 1915 £4,657,036; and the increase in the year was therefore one of £1,442,844 or slightly more than 25 per cent. Since the outbreak of war the increase has been one of about 80 per cent. That this figure represents the amount of the increase only apparently is due to the lessened purchasing power of money. More accurate conclusions can be drawn from the figures relating to the output of the societies. This cannot be exactly estimated; but if the case of butter be taken as typical, we find that 37 million pounds were produced in 1913, 36.99 million pounds in 1914, 37.6 million pounds in 1915, and 42,350,286 pounds in 1916. A certain amount of cheese has also been produced in the last couple of years. 1916 therefore showed indubitably a largely increased production.

Since 1911 the proportion which co-operative trade bears to the whole trade of Ireland has steadily increased. If the figure one be taken to represent the value of the co-operative trade, we find that the value of the whole trade was 51 in 1911, 44 in 1912, 45 in 1913, 42 in 1914 and only 37.5 in 1915.

The Irish Agricultural Organization Society suffers from lack of support from its adherent societies. In 1916 their fees for affiliation and subscriptions amounted to £3,257, having increased by £662 since 1915. The society's annual expenses are however about £11,000; it has to meet an annual deficit of more than £5,000 which is largely but not entirely made good by grants from the Development Commissioners. At the general meeting last December a resolution to call upon the societies to subscribe a halfpenny in the pound from their turnover was unanimously adopted. If this resolution be carried into effect a sum between £14,000 and £15,000 a year will be realized and the society will become independent.

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2. THE IRISH FARMERS' UNION. — *Butler Business*, Vol. III, No. 2; Dublin, February 1919.

The Irish Farmers' Union, which was founded in 1911, exists to provide a central consultative agency for local farmers' associations.

Its formation was due to a few county farmers' associations; and at first it seemed destined to fail because these local associations had not enough spare vitality to maintain a central union. But in 1913 the Dublin lock-

out stimulated the energy of the County Dublin Farmers' Association, the most important body affiliated to the Union, and brought the farmers of County Dublin together; and the lock-out was followed by the special agricultural conditions caused by the war. In the autumn of 1914 the Irish Farmers' Union was resuscitated by its original founders.

Twenty-seven farmers' associations, all active in the three southern provinces, are now affiliated to it. They include the County Dublin Farmers' Association to which belong 300 farmers dwelling or farming in County Dublin. The other affiliated associations are severally active either within a county or within a less district centring in a market-town. An affiliated association pays a fee of two pounds and is then entitled to send two delegates to the union's meetings. The union meets quarterly in the rooms of the County Dublin Farmers' Association, and employs and pays the same secretary as this latter body. It has a committee of twenty members which meets every month and a number of standing committees. It receives no government grant but is entirely self-supporting.

As regards prospective additional members of the Union, numerous associations are springing up on all sides. In County Wexford twenty-six associations have formed a county farmers' union and this is negotiating as to its affiliation. Some Ulster farmers have attended meetings of the Irish Farmers' Union, and the latter body has been in communication with the Ulster Farmers' Union, but so far the two unions have not attempted to combine.

The work hitherto accomplished by the Irish Farmers' Union has been mainly in the direction of influencing the government of Ireland in the interest of farmers, and although small it has been important. The union has obtained a hearing from the Department of Agriculture, and it obtained a hearing from the Irish Convention although it failed to secure representation on that body. When the Central Wages Board was formed in September 1917 it secured a seat on it for its president.

As regards the place which farmers should give to co-operation there is a difference of opinion among the members of this union and other experts. On the one hand Mr. Russell of the Irish Agricultural Organization Society strongly advocates the development of co-operation as a means of eliminating the middleman, and criticizes the farmers' associations belonging to the union: they are, he says, "so dominated by traders that the tame farmers in them actually made it a boast that they were not going to trade or do anything which would lessen the profits of the middlemen". On the other hand some of the farmers belonging to the associations state that they have no time to spare from their farming to give to the committee meetings of co-operative societies; that they must leave trade and manufacture to middlemen and manufacturers. The fact is that the associations which form the union flourish in districts where large and mixed rather than small farming is the rule, and where therefore farmers can realize profits without the strict economy at which a co-operative society aims. The union however acknowledged the uses of co-operation to some extent when its meeting of 25 July 1917 resolved "that where local and other cir-

cumstances point to the necessity for the formation of co-operative societies for the buying of farmers' requirements and the selling of their produce, associations affiliated with this union shall be free to act as they may individually desire".

The union also pursues a work of education. It instructs its adherent farmers on points of hygiene important to their children's health; and it has resolved "that in view of the great importance of agriculture to Ireland this union considers the education afforded in county schools should be in large measure directed towards giving pupils an intelligent insight into matters appertaining to rural life and conditions".

REGENCY OF TUNIS. •

THE NATIVE THRIFT SOCIETIES IN 1916 (1) — Report of the business of the native thrift societies in 1916 in the *Journal officiel Tunisie*, 22 December 1917.

Financial Situation. — The receipts of the native thrift societies which increased their assets amounted in 1916 to the following sums:

1. Recoveries on credit of former societies . . .	3,713.15	francs
2. Recoveries on additional centimes of the <i>medjba</i> tax	8,172.86	»
3. Quota due to the native thrift societies of recoveries of temporary subscriptions . . .	150,148.18	»
4. Additional centimes of the <i>canoun</i> tax on olive and date trees:		
a) Years before 1910	989.85	{ 158,065.10
b) 1910 and later years	157,075.25	
5. Additionnel centimes of the <i>achour</i> tax:		
a) Years before 1910	1,390.52	{ 217,137.60
b) 1910 and later years	215,747.08	
6. Additional centimes of the Djerba land tax	9,326.19	»
7. Additional centimes of <i>mradjus</i>	3,420.09	»
8. Recoveries of costs of management and commission:		
a) for loans of seeds	11,272.29	{ 98,216.72
b) for mortgage loans	85,526.57	
c) for advances to affiliated societies.	1,417.86	
9. Recovery of gifts and legacies	1,000.00	
10. State advance taken from sum annually due by the Banque de l'Algérie	15,497.69	
Total	864,697.58	

(1) For the activity of these societies during 1915 see our issue for February 1917, page 25.

Independently of receipts increasing assets, 2,841,969.45 francs were recovered in 1916 from the amount of loans. This sum was made up as follows:

1. Loans of seeds	1908-09	3,162.11	francs
2. " —	1909-10	3,759.32	"
3. —	1910-11	17,605.86	"
4. " —	1911-12	980.16	"
5. —	1912-13	117,712.38	"
6. —	1913-14	63,156.92	"
7. —	1914-15	1,338,696.42	"
8. —	1915-16	542,630.52	"
9. Loans of subsistence	1908-09	9,188.61	"
10. " " "	1910-11	1,231.31	"
11. " " "	1912-13	1,235.90	"
12. " " "	1913-14	11,683.95	"
13. " " "	1914-15	575,083.50	"
14. Mortgage loans. . .	. . . . .	65,892.92	"
15. Advances to co-operative societies		89,949.57	"
Total . . .		2,841,969.45	
Carried over from recoveries increasing assets			
of societies.		864,967.58	
General total of recoveries in 1916		3,706,937.03	

Thus although the harvest of 1916 was good only in certain districts the recoveries of the native thrift societies were satisfactory. Their assets under the head of the centimes additional to direct taxes, which constitute the real subscriptions of members, increased by a sum of 546,270.02 francs, and this has been surpassed only in 1911.

Moreover the total costs of management and the commission, which represent the profit realized on the loans made, amounted to 98,216.72 francs, and this gives a notable advance on preceding years.

Finally a gift of 1,000 francs, offered to the societies by the Tunisian Chemical Manures Society on the occasion of a first delivery of superphosphates for the loans of the season 1916-1917, figures among the receipts increasing the assets of the societies.

Repayment of loans took place normally in 1916. A total sum of 2,841,969.45 francs was recovered under this head.

Recoveries by the kaïds and the sheikhs, on behalf of the native thrift societies, of loans of seeds and subsistence had not up to 1916 given rise to any remittance to these native officials. The decree of 20 May 1907 which instituted the native thrift societies contemplated that any help which these organizations of mutual aid might obtain should be rendered freely. However in view of the development of lending operations it seemed just to indemnify the native chiefs for the extra work and responsibility which such operations imposed on them. Therefore a decision of 5 January 1916 allotted to them from 1 January 1916 1 per cent. of all recoveries of loans of seeds and subsistence, to be divided in equal parts between the kaïds and the sheikhs.

Loans granted. — Since the harvest of 1915 was defective in certain regions, notably in Sahel and in the centre and the south, the societies had to face for the 1915-1916 season loans of grain as seed amounting to 32,899 quintals of wheat and 24,297 quintals of barley and entailing an expenditure of 1,043,749.82 francs + 524,407.84 francs = 1,568,157.66 francs, that is 31.72 francs per quintal of wheat and 21.58 francs per quintal of barley, sacks included.

Further in 1916 the native thrift societies made loans of seed potatoes for the first time, thus distributing 87.50 quintals in the kaïdat of Sousse. The seed potatoes cost 2,325.60 francs, or 60.50 the delivered quintal.

The only advance made in the form of a mortgage loan in 1916 was a supplementary loan of 15,000 francs to the recipient of a former loan. This was in response to the only application for such a loan made to the native thrift societies. Although on principle loans of this kind have been suspended for the period of the war, the societies are disposed to receive requests for them which particularly deserve attention.

The following table shows that advances to co-operative societies amounted in 1916 to 100,586.55 francs.

Operations effected									
Name of savings society	Remainder to be recovered on 31 December 1915	Advances in 1916	Total of columns 2 and 3	Sums recovered in 1916				Total of columns 5, 6 and 7	Remainder to be recovered on 31 December 1915 (Between columns 4 and 5)
				Principal accounts	Costs of management		8		
					Societies' accounts	Co-operative Societies' accounts			
1	2	3	4	5	6	7	8	9	
Co-operative association of gar- deners of Gabès	—	16,190.00	16,190.00	16,190.00	661.09	—	16,851.09	—	
Co-operative association of wea- vers of Djerba	5.00	4,157.40	4,462.40	—	—	—	—	4,462.40	
Co-operative association of potters of Djerba.	1,625.07	4,085.15	5,710.22	3,370.33	—	—	3,370.33	2,339.89	
Co-operative association of wea- vers of Ksar-Hellal	10,442.15	2,000.00	12,442.15	12,442.15	154.37	—	12,596.52	—	
Co-operative association of gar- deners of Soliman	5,171.00	—	5,471.00	5,471.00	339.30	56.55	5,866.85	—	
Co-operative association of potters of Nabeul	6,547.50	—	6,547.50	2,876.10	—	—	2,876.10	3,671.40	
Co-operative association of ha- rabias (silk-weavers of Tunis).	—	12,500.00	12,500.00	8,463.70	—	—	8,463.70	1,036.30	
Co-operative association of wea- vers of Djerid	7,575.44	23,534.60	31,110.04	21,136.29	—	—	21,136.29	9,973.75	
Co-operative association of sponge- fishers of Zarzis	—	10,019.40	10,019.40	—	—	—	—	10,019.40	
Co-operative wholesaler of Tunis.	—	20,000.00	20,000.00	20,000.00	206.55	—	20,206.55	—	
Laboratory of native industrial and commercial experiments	—	7,800.00	7,800.00	—	—	—	—	7,800.00	
	31,606.16	100,586.55	132,252.71	899,495.57	1,361.31	56.55	91,367.43	42,303.14	

Assets of Societies on 31 December 1916. — No expenditure occurred in 1916 to diminish the receipts increasing assets and these therefore amounted to the net sum of 864,697.58 francs. to which should be added the amount of the societies' assets as shown by the last report namely . . . 4,951,915.43 "

The total on 31 December 1916 was therefore 5,816 613.01 »
 These assets were made up as follows :

1.	Cash in hand		970,254.42	frances
2.	Still to be recovered from loans of seeds in 1908-09		46,517.26	"
5.	" "	1909-10	24,431.21	"
1.	" "	1910-11	76,972.89	"
5.	" "	1912-13	348,463.63	"
1.	" "	1913-14	136,176.62	"
7.	" "	1914-15	1,911,999.26	"
7.	" "	1915-16	1,027,652.74	"
4	Loans of subsistence in 1913-14		56,938.08	"
10.	" "	1913-14	18,319.75	"
11.	Mortgage loan		1,613,521.19	"
12.	Advances to co-operative societies		42,303.14	"
13	Sums advanced on 31 December 1,16 for loans of seeds in 1916-17 and not yet distributed among the debtor societies .		96,336.24	"
	Total		6,402,116.43	"

whence must be deducted the amount of recoveries of subsistence loans of 1909, 1911 and 1914-1915, to be repaid to the State which advanced them :

a) loans of 1900	9,188.01	francs)
b) " 1911	1,231.31		
c) " 1914-15	575,083.50		
	Remainder . . .		5,816,013.01

Part II: Insurance and Thrift

GERMANY.

THE DEVELOPMENT OF INSURANCE AGAINST HAIL (*continued*).

SOURCE:

ROHRBECK (D. Jur. and D. Phil., W.) (of Cologne): *Die Deutsche Hagelversicherung in Wirtschaft und Recht der Versicherung* — Supplement to *Mitteilungen für die öffentlichen Feuerversicherungs Anstalten*, published by the *Verband öffentlicher Feuerversicherungs-Anstalten in Deutschland* — 49th Year, new series. 6th year, Nos. 1 and 2, 87 pp., Kiel, February 1917.

Having described the development of organizations insuring against hail, considered in groups, we have still to make use of a whole series of data which will give us a better insight into their business. Where certain aspects of the question are concerned we have already been able to give a total figure which bore in general on the period from 1881 to 1915. In the ensuing tables there will be question of certain analyses of these totals.

The following elements will occur in the order in which they are cited: a view of the aggregate development of these organizations, giving details as to insured sums, premiums, the amount of losses, costs of administration, and the various reserve funds; the four last named items of liability in the societies' books expressed as percentages of the insured sums; some details as to the premiums and losses of local unions from 1908 to 1915, and the results shown by each of these societies in their reports for 1915.

Let us state at once that the period from 1881 to 1915 comprises the years 1881, 1885, 1890, 1895, and 1900 and every year from 1900 to 1915.

§ 12. DEVELOPMENT OF ALL THE ORGANIZATIONS, TAKEN TOGETHER, FROM 1881 TO 1915.

A. — We will at once show, for the years indicated, the sums insured, the premiums and the amount of losses. These two latter items will eventually be expressed in terms of a percentage of the first (Table A).

TABLE A. — *Development of the combined organizations.*

Year	Sums insured — marks	Premiums — marks	% of sums insured — marks	Amount of losses — marks	% of sums insured — marks
1881	1,628,096,043	15,274,403	0.94	12,661,249	0.78
1885	1,625,346,555	18,914,051	1.16	17,222,352	1.06
1890	2,229,665,971	21,282,490	1.00	17,622,577	0.79
1895	2,295,176,535	19,476,273	0.85	14,484,423	0.63
1900	2,661,359,191	24,912,381	0.94	21,317,356	0.80
1901	2,643,855,604	26,125,586	0.99	21,458,323	0.81
1902	2,861,371,419	29,808,709	1.04	27,890,636	0.98
1903	2,852,498,573	28,566,572	1.00	24,015,810	0.85
1904	2,892,774,523	26,628,412	0.92	18,955,014	0.66
1905	2,961,575,523	41,794,485	1.41	45,340,094	1.53
1906	3,108,186,615	42,608,003	1.37	41,611,084	1.34
1907	3,152,164,715	43,797,427	1.39	41,921,289	1.33
1908	3,275,802,696	54,095,457	1.65	55,619,993	1.70
1909	3,166,700,005	31,322,026	0.99	16,636,056	0.53
1910	3,330,353,813	53,662,403	1.61	48,980,586	1.47
1911	3,310,235,912	34,516,528	1.04	21,644,060	0.65
1912	3,522,669,487	43,941,655	1.26	36,284,043	1.03
1913	3,561,955,812	37,499,864	1.04	25,042,954	0.70
1914	3,652,595,376	44,076,440	1.21	34,236,051	0.93
1915	4,157,691,390	36,926,621	0.89	25,741,816	0.62

Between the first and the last date for which we have data the insured sums passed, as is seen, from 1,628,096,043 marks to 4,157,691,390 marks, the progressive movement being almost continuous save for a fall of 2,740,488 marks between 1881 and 1885, of 17,503,587 marks between 1900 and 1901, and of 8,872,846 marks between 1902 and 1903; while from 1908 to 1909 a fall is registered of 109,192,691 marks, and from 1910 to 1911 another of 20,117,901 marks. To sum up: between 1881 and 1915 this most important figure was multiplied by slightly more than two and a half.

The amount of premiums was multiplied by 2.4. It passed from 15,274,403 marks to 36,916,621 marks, suffering in the same period the following falls: one of 1,806,217 marks between 1890 and 1895; one of 1,242,137 marks between 1902 and 1903; one of 1,938,160 marks between 1903 and 1904; of 22,773,431 marks between 1908 and 1909; of 19,145,875 marks between 1910 and 1911; of 6,441,791 marks between 1912 and 1913; and of 7,149,819 marks between 1914 and 1915. Such fluctuations were possible owing to the rise to 41,794,485 marks in 1905 and even to 54,095,457 marks in 1908. In 1881, when the period began, the percentage which premiums formed of the amount of the insured sums was almost at its lowest, being 0.94, and in 1915 it was 0.89, while in 1895 it reached its very lowest level, being 0.85. The bulk of associations insuring against hail being mutual societies, it follows that there is very great

approximation between the figure representing losses incurred and that standing for premiums received, and in consequence the percentage of premiums has oscillated from a minimum of 0.85 to a maximum of 1.65.

The amount of losses rose from 12,661,249 marks to 25,641,816 marks, that is it did no more than double during this period. It should be noticed that it even reached 55,619,993 marks, a sum slightly in excess of the sum of the premiums, in 1908. This same circumstance was produced in 1905, a year in which premiums stood at 41,794,485 marks and losses at 45,340,094 marks. It will be seen that the data we possess do not show a loss during a period of this duration except in the two years mentioned.

As regards the percentage of the insured sums formed by losses, this ranged from 0.7 to 0.62 and even sank to 0.53 in 1909. In 1908 it was at its maximum, being 1.70.

§ 13. DEVELOPMENT OF THE VARIOUS CATEGORIES OF SOCIETIES FROM 1881 TO 1915.

a) The total figures can be distributed among the different categories of societies as shown by the data in tables a) to c). In table a) the insured sums are thus distributed.

They passed from 786,457,088 marks in 1881 to 983,655,083 marks in 1915, but in 1907 reached 1,077,173,625 marks. Since between 1881 and 1885 they had fallen to 709,048,813 marks, the increase between 1885 and 1915 was one, in round figures, of 275 million marks. We do not know whether this item continued to rise after 1915, but it is to be noted that between 1914 and 1915 a rise of 83 million marks is found.

The sums insured by the territorial mutual societies having initial and additional premiums passed from 610,268,910 marks in 1881 to 2,127,773,581 marks in 1915. Fluctuations were few during this period: there was a fall of 61,374,138 marks between 1900 and 1901, one of 4,669,117 marks between 1902 and 1903, one of 22,935,385 marks between 1904 and 1911.

The territorial mutual societies having distributory premiums insured 149,790,045 marks in 1881 and 410,078,326 marks in 1915. Between 1881 and 1903 three retrograde movements are noted: a fall of 20,169,770 marks between 1881 and 1885, another of 10,814,675 marks between 1890 and 1895, and a third of 5,250,975 marks between 1902 and 1903. Since insured sums still amounted to 150,876,175 marks in 1905, this group of societies may be said to have marked time for some twenty years, and to have accomplished all its increase in the fifteen subsequent years. Since the sums insured by this group were almost tripled, progress in the last period indicated was very certain.

TABLE a). — *Sums insured*

Year	Stock companies	Territorial mutual societies			Local organiza- tions	State institutions	Foreign societies
		having initial and additional premiums	having distributory premiums	Total			
	marks	marks	marks	marks	marks	marks	marks
1881	786,557,088	610,268,910	149,790,045	760,058,955	81,480,000	—	£,504,644
1885	709,048,813	694,441,878	129,620,275	824,062,153	70,580,000	20,150,945	428,910
1890	867,439,792	1,057,761,359	133,411,450	1,191,172,809	85,990,000	84,634,460	—
1895	855,361,273	1,099,600,637	122,596,775	1,222,197,412	78,180,000	139,437,850	—
1900	982,670,229	1,238,236,497	144,720,925	1,382,957,422	101,220,000	194,511,540	—
1901	955,619,600	1,229,263,939	150,876,175	1,380,140,114	103,000,000	205,095,890	—
1902	1,056,415,303	1,301,747,081	169,737,475	1,471,484,556	117,650,000	215,821,560	—
1903	1,050,140,129	1,297,077,964	164,486,500	1,461,564,464	117,450,000	223,343,980	—
1904	1,060,915,190	1,302,395,453	171,804,900	1,474,200,353	125,850,000	231,808,980	—
1905	1,073,064,366	1,342,248,397	185,296,600	1,527,544,997	131,440,000	229,526,160	—
1906	1,121,347,348	1,407,768,537	202,934,100	1,610,702,937	144,890,000	231,246,330	—
1907	1,077,173,625	1,456,939,680	224,175,400	1,681,115,080	157,840,000	236,036,070	—
1908	1,069,204,282	1,538,293,867	247,553,150	1,785,847,017	166,163,637	254,587,760	—
1909	930,716,931	1,539,026,955	259,913,150	1,798,940,105	169,482,349	267,560,620	—
1910	941,650,425	1,652,034,908	293,814,400	1,935,849,303	179,821,290	273,032,790	—
1911	902,058,249	1,629,099,523	304,454,300	1,933,553,823	208,693,500	275,930,340	—
1912	908,261,183	1,783,173,974	317,786,204	2,100,960,178	230,038,366	283,409,760	—
1913	900,572,776	1,823,333,433	325,501,173	2,148,836,606	231,444,230	281,102,200	—
1914	900,299,015	1,861,600,975	335,315,273	2,196,916,248	236,969,253	318,470,860	—
1915	983,655,083	2,127,773,581	410,078,326	2,537,851,907	325,000,000	311,184,400	—

Whether the territorial mutual societies exact initial and additional or distributory premiums they have the great point of resemblance that their premiums are fixed. Therefore their groups may be considered together, if only for the purpose of noting the degree of importance which mutual institutions have acquired in the sphere of insurance against hail. It is seen that they insured 760,058,955 marks in 1881 and were able to increase this sum to 2,537,851,907 marks in 1915. Out of an increase of 505,106,014 marks, found to have occurred between 1914 and 1915 in the total sums insured against hail in Germany, 340,935,659 marks are to be assigned to the territorial mutual societies taken together.

The local organizations have made even more progress. They insured 81,480,000 marks in 1881 and 325,000,000 marks in 1915. During the period under consideration therefore the sums insured were quadrupled. The progress so indicated is of much the same kind as that we have already noted as standing to the credit of the territorial mutual societies having distributory premiums. The amount insured by the local associations remained stationary for more than fifteen years, a period of oscillations which produced

no stable rise, and then, from 1900 onwards, a persistent rise, without any relapses, occurred.

The sums insured at the Bavarian State Institute are indicated by data which cover the period from 1885 to 1915. In 1885 the figure which stood for them was 20,150,945 marks, in 1915 it was 311,184,400 marks. Thus the increase was considerable, the earlier figure being multiplied by fifteen. In 1901, however, the amount reached was already 205,095,890 marks, which shows that after having been multiplied by ten in the space of fifteen years these sums could not continue to rise at the same rate. The increase became much slower but it was still almost constant. It should be noted moreover that the maximum amount, namely 318,410,860 marks, was reached in 1914.

As regards foreign societies, the sums they insured are of very little importance. In 1885 they insured 1,504,643 marks, and 428,910 marks in 1890. For the rest of the period under consideration there are no data.

b) Table b) is concerned with the distribution of premiums.

These in the stock companies were represented by 7,196,003 marks in 1881 and by 11,079,026 marks in 1915. The fluctuations have not been excessive: in 1885 premiums were at their minimum figure, namely 6,671,118 marks, and they were at their maximum, namely 11,079,026 marks, in 1906.

The territorial mutual societies having initial and additional premiums showed 5,310,865 marks as the figure representing their premiums in 1881, and this had passed to 15,909,020 marks in 1915. Since premiums were not fixed it is not astonishing that their amount fluctuated considerably during this period. This minimum, 5 million marks, subsequently varied, rises and falls succeeding each other, and the maximum, 33,003,319 marks occurred in 1910.

The same fluctuations occurred among the territorial mutual societies having distributory premiums, the premiums of which amounted to 1,746,535 marks in 1881 and to 3,621,890 marks in 1915, being at their minimum, namely 747,751 marks, in 1895, and at their maximum, namely 4,630,860 marks, in 1908.

The premiums of the territorial mutual societies aggregated 7,057,400 marks in 1881 and 19,530,910 marks in 1915; the maximum, namely 36,911,796 marks, occurring in 1908.

The local organizations had premiums amounting to 1,021,000 marks in 1881 and to 1,830,000 marks, the maximum, in 1915. Their minimum was 361,000 marks and occurred in 1885.

The Bavarian State Institute had premiums amounting to 238,067 marks in 1885 and to 4,486,685 marks in 1915. The most accentuated rise occurred between 1885 and 1900, the premiums amounting to 2,474,605 marks at the latter date. The maximum, 4,992,443 marks, was reached in 1914.

The premiums of foreign societies passed from 14,716 marks in 1885 to 4,090 marks in 1890.

TABLE b) - *Premiums.*

Year	Territorial mutual societies						
	Stock companies	having initial and additional premiums	having distributory premiums	Total	Local organizations	State Institute	Foreign societies
	marks	marks	marks	marks	marks	marks	marks
1881	7,196,003	5,310,865	1,746,535	7,057,400	1,021,000	—	—
1885	6,671,118	9,366,112	2,263,038	11,629,150	361,000	238,067	14,716
1890	5,211,912	10,034,672	1,487,562	11,522,234	545,000	999,254	4,090
1895	8,073,722	8,612,007	747,751	9,359,758	375,000	1,667,793	—
1900	9,219,927	11,659,401	1,004,448	12,663,849	554,000	2,474,605	—
1901	9,044,208	12,530,962	1,186,347	13,717,309	680,000	2,684,069	—
1902	13,399,399	14,169,349	1,647,171	15,816,520	710,000	2,882,790	—
1903	10,487,302	13,180,964	1,217,908	14,398,872	595,000	3,085,398	—
1904	10,451,336	10,589,079	1,099,178	11,688,257	805,000	3,683,819	—
1905	10,625,072	22,651,296	3,178,449	25,829,745	1,575,000	3,764,668	—
1906	11,511,621	23,603,256	2,457,565	26,060,821	1,186,000	3,849,561	—
1907	11,257,367	23,930,670	3,470,524	27,401,194	1,251,000	3,887,866	—
1908	11,273,614	32,280,936	4,630,860	36,911,796	1,773,067	4,136,980	—
1909	10,642,900	13,237,059	1,724,028	14,961,087	996,068	4,721,971	—
1910	10,961,300	33,003,319	3,842,479	36,845,798	942,035	4,873,270	—
1911	10,875,878	14,958,647	3,042,522	18,001,169	780,802	4,856,681	—
1912	10,699,698	22,690,862	4,358,863	27,049,725	1,502,250	4,689,982	—
1913	10,547,113	17,972,294	3,374,255	21,346,549	1,189,273	4,416,929	—
1914	10,318,963	23,918,264	3,708,484	27,626,748	1,138,266	4,992,443	—
1915	11,079,026	15,909,020	3,621,890	19,530,910	1,830,000	4,486,685	—

c) The amount of the losses recorded by the stock companies was 5,873,708 marks in 1881 and 3,579,856 marks in 1915. The minimum, 2,664,234 marks, occurred in 1909, and the maximum, 15,323,767 marks, in 1905. Since these figures depend on a number of factors — more or less frequent falls of hail, the rise and fall in the amount of business undertaken and consequently of the insured sums — no conclusions can be drawn from them.

In the case of the territorial mutual societies having initial and additional premiums, 188 produced 4,117,699 marks, the minimum figure. In 1915 losses amounted to 13,666,221 marks, and in 1910 they reached their maximum, 31,366,065 marks.

The territorial mutual societies having distributory premiums had losses amounting to 1,699,842 marks in 1881, and to 3,322,267 marks in 1915.

The minimum figure, 540,842 marks, occurred in 1895, and the maximum, 4,550,581 marks, in 1908.

The territorial mutual societies taken together had therefore losses amounting to 5,817,841 marks in 1881 and to 16,988,488 marks in 1915. The minimum figure was that for 1881, and the maximum, 35,100,853 marks, occurred in 1910.

The local societies had losses amounting to 970,000 marks in 1881 and to two million marks in 1915. Their minimum under this head, 176,599 marks, occurred in 1909. 1915 was the year in which societies of this group suffered the heaviest losses.

TABLE c). — *Amount of losses and costs of valuations.*

Year	Territorial mutual societies				Local organiza- tions	State In-stitute	Foreign societies
	Stock companies	having initial and additional premiums	having distributory premiums	Total			
	marks	marks	marks	marks	marks	marks	marks
1881	5,873,708	4,117,699	1,699,642	5,817,841	970,000	—	—
1885	5,689,788	8,598,116	2,283,457	10,881,573	366,000	275,478	9,513
1890	6,304,978	8,346,200	1,330,931	9,677,131	605,000	1,024,226	11,242
1895	4,678,705	7,500,051	540,842	5,040,696	278,000	1,486,822	—
1900	6,550,238	10,021,139	839,500	10,860,639	372,000	3,534,479	—
1901	5,842,024	11,078,636	1,086,011	12,164,647	630,000	2,821,652	—
1902	9,338,374	13,203,010	1,492,044	14,695,054	539,000	3,318,208	—
1903	6,306,476	12,227,109	1,188,771	13,416,180	346,000	3,947,154	—
1904	6,913,591	9,123,635	933,058	10,056,693	603,000	1,381,730	—
1905	15,323,767	21,518,761	3,448,295	24,967,056	1,892,000	3,157,271	—
1906	10,760,968	23,545,160	2,496,664	26,042,124	1,139,000	3,668,992	—
1907	10,455,559	22,782,523	3,606,243	26,388,766	1,218,000	3,858,964	—
1908	13,118,395	29,742,148	4,550,581	34,292,729	1,859,299	6,349,570	—
1909	2,664,234	8,450,649	2,141,828	10,592,477	176,599	3,202,746	—
1910	9,206,761	31,366,665	3,744,788	35,100,853	798,451	3,864,521	—
1911	3,361,183	12,094,110	2,722,986	14,817,096	425,000	3,040,781	—
1912	6,126,339	21,872,817	4,396,370	26,269,187	1,516,124	2,364,081	—
1913	3,101,180	14,235,526	2,952,265	17,187,791	595,649	4,158,334	—
1914	4,837,447	20,924,390	4,016,483	24,941,273	711,029	3,746,302	—
1915	3,579,856	13,666,221	3,322,267	16,988,488	2,000,000	3,173,472	—

The Bavarian State Institute recorded its minimum losses, 275,478 marks, in 1885. Its losses amounted to 3,173,472 marks in 1915, and reached their maximum, 6,349,570 marks, in 1908.

As regards this point also, foreign societies registered only for the two years 1885 and 1890, their losses amounting to 9,513 marks in the former and 11,242 marks in the latter year. As the amount of their insured sums and premiums diminished, that of their losses increased. This would sufficiently explain their disappearance from the sphere of insurance against hail.

It is to be noted in the figures we have reproduced that, save in the case of rare exceptions, the largest sums stand for losses in the period from 1905 to 1910.

TABLE d). — *Territorial Mutual Societies.*

Year —	Initial Premiums — marks	Additional Premiums — marks
1881	4,518,494	790,661
1885	5,419,708	3,946,400
1890	7,442,091	2,572,620
1895	7,248,997	1,363,010
1900	8,252,740	3,406,662
1901	8,292,560	4,238,402
1902	8,741,208	5,428,142
1903	8,716,487	4,455,997
1904	8,742,533	1,838,377
1905	8,948,008	13,792,362
1906	9,571,597	14,031,659
1907	10,006,784	13,923,885
1908	10,745,911	20,147,243
1909	10,868,482	2,205,163
1910	12,213,452	20,298,259
1911	12,214,571	2,699,357
1912	13,218,208	9,392,714
1913	13,398,222	4,483,021
1914	13,479,855	10,314,116
1915	15,179,103	508,810

d) In table b) the initial and additional premiums of the territorial mutual societies were lumped together. Tables a) to c) have enabled us to complete our analysis of the figures on Table A. We will now take the figures which show how these societies make the distribution among initial and additional premiums.

In 1881 initial premiums amounted to 4,518,494 marks, and they followed an almost constant progress to reach 15,179,103 marks in 1915. These sums marked their minimum and maximum, respectively.

Additional premiums rather follow the more or less unforeseen course of losses. They were at their minimum, 508,810 marks, in 1915. In 1881 they were 790,661 marks and they reached their maximum, 20,298,259 marks, in 1910. In most years their amount is less than that of the initial premiums. When it exceeds it grave losses are indicated, and this distribution shows us once again that insurance against hail went through a critical period from 1905 to 1910, 1909 being however a more or less normal year, while the additional premiums recorded for 1914, if they do not exceed the initial premiums in amount, yet indicate that losses must have been very grave. The same is true, in a less marked degree, of the year 1912.

2) Costs of administration and reserve funds have not been brought together as a total in table A, but, what is more important, we have the elements which compose them for every category of societies except the foreign societies. The slight importance, which seems actually to have ceased to exist, of the foreign societies to insurance against hail apparently brought about that no further mention of them was made.

In 1881 the stock companies entered 1,593,082 marks as their costs of administration, and in 1915 the sum of 1,749,267 marks. Their minimum under this head, 1,303,699 marks, occurred in 1885 and their maximum, 2,497,940 marks, in 1906. These two extreme figures occurred exactly in the years in which the amount of insured sums was, respectively, lowest and highest.

The territorial mutual societies having initial and additional premiums had costs of administration amounting to 1,074,017 marks in 1881 and to 3,591,952 marks in 1915, these two sums being their minimum and maximum, respectively. The sums insured stood to these costs in the same relation as that noted in the case of the stock companies.

The territorial mutual societies having distributory premiums recorded their minimum costs of administration, 59,319 marks, in 1881. In 1915 these costs were 165,474 marks, their maximum, namely 173,960 marks, occurring in 1913. In this group of societies the costs of administration did not follow exactly the same course as the insured sums.

Taken together, the territorial mutual societies had costs of administration which amounted to 1,133,336 marks in 1881 and to 3,757,426 marks in 1915, these two sums being, respectively, their minimum and maximum.

In the case of the Bavarian State Institute, these costs amounted to 4,030 marks in 1885 and to 373,528 marks in 1915. The former figure also represents the minimum, but the maximum, 384,921 marks, was recorded in 1914. In this Institute the minimum and maximum costs of administration and the minimum and maximum of the insured sums correspond, but it is to be noted that in the period considered the costs of administration increased at a greater rate than the amounts of the insured sums.

The question of costs of administration does not arise in the case of the local organizations.

TABLE e'. — *Costs of administration and provisions.*

Year	Stock companies	Territorial mutual societies			State Institute
		having initial and additional premiums	having distributory premiums	Total	
	marks	marks	marks	marks	marks
1881	1,593,082	1,074,017	59,319	1,133,336	—
1885	1,313,699	1,337,226	114,465	1,451,691	4,030
1891	1,677,256	2,154,106	143,124	2,297,230	21,013
1895	1,860,077	2,251,091	131,609	2,382,700	27,893
1900	2,045,630	2,574,819	128,681	2,703,500	56,679
1901	2,353,221	2,554,690	137,991	2,692,681	51,575
1902	2,104,208	2,649,992	128,761	2,778,753	55,152
1903	2,307,170	2,606,220	117,535	2,723,758	60,287
1904	2,259,761	2,542,510	132,788	2,675,298	54,417
1905	2,263,333	2,530,802	117,253	2,648,055	57,461
1906	2,497,040	2,669,389	124,992	2,794,381	60,102
1907	2,296,004	2,719,721	126,458	2,846,179	62,641
1908	2,132,554	2,898,706	127,997	3,026,703	76,518
1909	2,202,178	2,949,062	144,229	3,093,291	122,221
1910	2,154,146	3,083,231	139,831	3,223,062	217,431
1911	2,184,630	3,094,195	150,818	3,245,013	198,175
1912	1,797,102	3,251,912	169,789	3,421,701	317,076
1913	1,803,393	3,411,470	173,960	3,585,430	328,100
1914	1,706,960	3,489,602	171,519	3,661,121	384,921
1915	1,749,267	3,591,952	165,474	3,757,426	373,528

f) The relatively greater or less importance of the reserve funds shows well the diversity of the groups of societies.

In the case of the stock companies funds of this kind amounted to 600,276 marks in 1881 and 14,724,501 marks in 1915. Their minimum, 69,540 marks, occurred in 1885. The maximum figure occurred in 1915 and was a high figure in comparison with those found in the other two groups. The great fluctuations which we have seen in the figures for the years from 1904 to 1912, eight years during which the amount of the reserves of the stock companies fell from nine to three millions and then with difficulty rose again to eight millions, are explained by the liquidation of one of these societies during a succession of somewhat difficult years.

The territorial mutual societies having initial and additional premiums had reserves amounting to 1,179,126 marks in 1881 and to 8,576,081 marks

in 1915. This latter figure represents the maximum. The minimum, 440,158 marks, was registered in 1885. Here also difficult periods are shown by fluctuations which are however spread over a larger number of years. The differences are not therefore considerable. The sum of 3,229,234 marks was reached in 1895 and in 1910 the amount was still 3,008,823 marks. But during the next five years reserves were almost tripled. During this period of fifteen years the maximum fall was one of no more than about a million marks

TABLE f) — *Reserve Funds and Special Reserves.*

Year	Stock companies marks	Territorial mutual societies			State Institute marks
		having initial and additional premiums marks	having distributory premiums marks	Total marks	
1881	600,276	1,179,126	389,164	1,568,290	—
1885	69,540	440,158	386,436	826,594	222,395
1890	4,345,610	1,423,578	469,748	1,893,326	1,255,940
1895	8,677,443	3,229,234	589,045	3,818,279	2,114,391
1900	7,594,361	2,323,971	770,011	3,093,982	2,662,648
1901	8,339,653	2,415,681	869,948	3,285,629	2,842,818
1902	7,483,420	2,108,309	1,006,709	3,115,018	2,725,785
1903	8,202,673	2,116,899	1,045,424	3,162,323	2,174,167
1904	9,171,331	2,332,941	1,198,665	3,531,606	6,268,147
1905	4,774,818	2,449,928	1,250,111	3,700,039	7,297,765
1906	4,631,599	2,487,482	1,166,283	3,653,765	7,943,871
1907	4,644,815	2,642,487	1,047,940	3,690,427	8,442,137
1908	4,553,130	2,566,813	1,059,023	3,625,836	6,652,718
1909	3,591,126	3,855,560	1,511,935	5,367,495	8,517,301
1910	4,914,868	3,008,823	1,641,746	4,650,569	9,772,930
1911	6,646,569	4,426,494	2,004,300	6,430,794	11,887,416
1912	8,175,256	4,187,098	2,104,316	6,291,414	14,338,698
1913	10,780,460	6,616,471	2,581,805	9,198,276	14,935,278
1914	12,454,942	7,472,075	2,441,167	9,913,242	16,602,938
1915	14,724,501	8,576,081	2,888,361	11,464,442	18,389,061

The fluctuations in question are still less marked in the case of the territorial mutual societies having distributory premiums. The reserves of these reached 389,164 marks in 1881, and their maximum, 2,888,361 marks, in 1915. Their minimum, 386,436 marks, occurred in 1885. From this lat-

ter date progress was continuous until 1905 when the reserves amounted to 1,250,111 marks. The subsequent fall was one of only 200,000 marks in three years. Progress was then resumed and was arrested only at the last date as to which we have data.

The territorial mutual societies when taken together afford the following figures: in 1881 an amount of 1,568,290 marks; in 1915 this amount reached its maximum, 11,464,442 marks; the minimum, 826,594 marks, occurred in 1885.

The Bavarian State Institute had much larger reserves than the other societies. They amounted to 222,395 marks when they were at their minimum in 1885, and reached their maximum, 18,389,061 marks, in 1915. At the latter date they were larger by nearly four million marks than those of the stock companies, although these latter insured a three times larger amount of insured sums. Moreover except between 1907 and 1908, when the reserves of this Institute fell by 1,800,000 marks, their increase was continuous. They showed no trace of that period of crisis during which all the other groups of societies suffered more or less.

(to be continued).

Part III: Credit

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES

ARGENTINE REPUBLIC.

THE BANK OF THE ARGENTINE NATION AND ITS DEVELOPMENT — *The Statist*,
vol. XC, No. 2071, London, 3 November 1917

The Bank of the Argentine Nation is the official government institution, the directors being nominated and all the liabilities guaranteed by the government. It was founded in October 1891 with an official capital of \$50,000,000 paper. The corresponding shares were offered for public subscription. Against a bond representing the whole issue the *Caja de Conversión* (Governmental Issuing Department) delivered to the newly founded bank an equal sum in currency, without at this time any real guarantee. It was intended that the money should be paid back if and when the public should subscribe the shares. The bank was practically working upon a debt until 1904, when its charter was reformed and it received the real character of a State bank, the Argentine nation becoming fully liable for its operations. The capital of \$50,000,000 paper was confirmed, not however as a debt to the *Caja de Conversión* but as fully paid-in capital.

In such a critical time the new bank was not regarded with popular favour and the shares were not taken up. The bank had become and is a government institution, but it is not allowed to lend the government more than 20 per cent. of its capital and reserve. It pays no dividends, 50 per cent. of its annual net profit being carried to the credit of capital account and 50 per cent., converted into gold, to reserve. In the last three years expenses have been equal to the gross profit on account of the inclusion of sums written off. In this way the capital has been increased to \$128,000,000 paper, and a reserve of \$14,465,505 gold has been built up.

In spite of initial difficulties the bank has acquired a position of the greatest importance in Argentina. At the end of 1892, when the first balance-sheet was issued, the deposits in sterling equivalent amounted to £4,312,549. Twenty years later, on 31 December 1912, the sterling equivalent amounted to £41,758,686, and on 31 December 1916 to £65,969,817. Development is equally shown by the fact that 186 branches of the bank are now active in the republic.

In his report to the Minister of Finances, the president of the bank pointed out that the year 1916 was, like the two previous years, beset by difficulties and a feeling of insecurity. In spite however of the circumstances unfavourable to the normal increase and development of banking transactions, which kept the market in a constant state of unrest, the decrease of bankruptcies, which began in the latter half of 1915, continued and became still more marked in 1916; and this was a proof that the liquidation of businesses which had for years been insecure was tending to bring about a gradual settlement of the general situation. Once again the balance of trade was in favour of Argentina, notwithstanding the prolonged drought and other plagues which rendered fruitless the labour of many and put to a hard test the wonderful productive capacity of the soil, and notwithstanding the adverse conditions affecting the export trade owing to scarcity of tonnage.

During 1916 the Bank not only, as in previous years, was the regulator of credit and mainstay of business in general, but also continued by its intervention to obviate numberless failures which would have demobilized many elements of labour, production or commerce. It was afforded an opportunity of giving practical proof of its care for the continuance and growth of the agricultural and pastoral industries. It made opportune and efficient regulations which could be applied immediately and which tended to strengthen the position of agriculturists and cattle-raisers, by means of grants to secure them against accidents attaching to the abnormal economic and commercial conditions, by enabling them to sow their fields and harvest their crops, or by saving them from being forced to sell to speculators at ruinous prices. Stocks-raisers were also helped to improve the quality and thus increase the value of their stock.

The bank has not only fostered the development of the agricultural and pastoral industries but has also devoted particular attention to supporting small industries, making every effort to render the country independent of foreign manufacture, and endeavouring to connect itself with all sound enterprises of this description.

The progress of the business of the *Banca de la Nación Argentina* appears from the following figures :

	31 Dec. 1916	31 Dec. 1915	31 Dec. 1914	31 Dec. 1913	31 Dec. 1910	31 Dec. 1900	31 Dec. 1895	31 Dec. 1892
<i>Liabilities.</i>								
Capital \$ paper	128,000,000	128,000,000	128,000,000	128,000,000	117,179,009	50,000,000	50,000,000	50,000,000
Reserve gold \$	14,465,407	14,505,407	14,565,407	14,565,407	9,804,171	2,035,306	—	—
Conversion gold \$	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	6,100,876	—	—
Total capital and reserve % of total liabilities	21.7	23.0	25.4	28.4	33.7	31.8	27.1	32.4
Deposits	744,868,895	683,603,130	583,313,148	575,543,792	339,582,158	93,747,660	72,272,826	48,719,117
%	4745.574	3,855,018	9,723,293	10,489,373	16,158,994	815,224	683,366	298,838
Conversion account	71.5	69.3	66.9	66.2	59.0	43.6	39.3	31.9
%	45,454,545	66,325,953	45,451,545	312,449,33	1,000,000	130,776	6,434	—
%	6,514,111	—	5,407,863	—	—	—	—	6,077
Total Liabilities	929,436,633	888,740,322	768,207,269	693,172,787	597,247,066	108,084,453	186,282,630	15,483,434
%	55,826,466	48,423,220	59,712,401	55,079,688	57,379,151	9,087,581	704,566	374,550
<i>Assets.</i>								
Cash	366,621,052	362,235,051	194,147,852	180,056,048	99,182,591	44,190,902	43,958,769	20,888,887
% of total assets	14,907,093	10,329,806	28,611,226	32,272,703	36,591,016	7,974,709	666,091	367,709
Government securities %	37.9	38.8	28.7	30.9	28.6	28.5	24.2	14.0
Conversion	2.4	0.5	0.6	0.7	0.9	4.7	8.6	—
%	14,804,799	29,209,819	12,290,598	13,747,771	27,019,675	297,218	—	17,773
%	20,000,000	6	6.4	3.8	4.2	0.1	1,955	—
Advances etc.	209,218,104	174,734,002	95,084,810	76,988,984	51,096,662	52,163,101	60,577,330	77,311,014
%	18,886,935	6,722,067	8,466,060	5,624,686	18,022,866	1,100,028	6,519	6,841
Bills discounted %	23.9	19.0	12.6	11.0	14.4	25.0	32.3	49.8
Bank premises etc. \$ paper	27.8	32.9	49.3	51.3	49.1	38.0	29.0	20.9
%	24,288,535	22,321,296	21,482,460	18,304,855	17,742,031	8,115,739	11,203,436	23,817,226
%	2.3	2.2	2.4	2.3	2.8	3.7	5.9	15.3

EGYPT

ACTIVITY OF THE AGRICULTURAL BANK OF EGYPT IN 1916. — *The Statist*
v'l. XL, London, 3 November 1917.

During 1916 Egypt experienced much prosperity, largely owing to the very high prices realized for crops of all kinds, notably cotton. Consequently the small cultivators made money, and the business of the Agricultural Bank of Egypt, formed in 1902 to make loans to small cultivators on the security of their land and to enable them to obtain credit on reasonable terms, expanded.

The capital of the bank consists of bonds and shares and amounts to £10,310,000.

In 1913 the bank was authorized to invest its surplus funds in loans on the first mortgage of land in Egypt, and as a result it bought 194,621 ordinary shares of the Mortgage Company of Egypt, out of a total of 200,000, thus obtaining control of the company. The shares are of £5 each on which £1.5s. has been paid up. In the same year the Egyptian government extended the scope of the bank's operations by increasing the amount of its loans — the "A" loans (for a maximum period of 15 months, secured by crops) to £ E. 200, and the "B" loans (for 20 $\frac{1}{2}$ years, secured by first mortgages on land which must have a value double that of the sum lent, interest chargeable at rate of 8 per cent) to £ E. 1,000.

The twelve months ending on 21 January 1917 were the most prosperous in the bank's history. The gross profit was £ E. 1,174,948 as compared with £ E. 1,018,389 in the previous year; the net profit £ E. 774,375 as compared with £ E. 515,870 in the previous year and £ E. 151,729 in the year ending on 31 January 1915. The ordinary dividend was raised from 6 to 7 per cent., and the deferred dividend from 300 to 800 per cent.

The year ending on 31 January 1915 was a very poor one, in which, in accordance with the terms of the government guarantee of dividend, it was necessary to draw on the general reserve fund to the extent of £ E. 472,700. This sum was reduced by repayments in the two subsequent years to £ E. 144,757.

On 31 January 1917 the total arrears outstanding were £ E. 817,254 as against £ E. 1,209,186 on 31 January 1916. Of the total £ E. 291,239 represented interest.

The sums collected in the year ending on 31 January 1917 from the annual instalments due and the arrears of past years reduced the instalments overdue from £ E. 1,143,280 to £ E. 1,052,831. There was every expectation that the bank's clients would dispose of their produce at even better prices in 1917 than in 1916, and that there would therefore be a further important reduction of this item.

The war conditions naturally enjoin caution, and lending business has been restricted, the loans falling from eight million Egyptian pounds in 1910 to five and a half million in 1917.

Every effort was made in 1916 to sell the bank's holdings in land which had been increasing for some years. On 21 January 1917 the bank was left with 4,726 feddans valued at £ E. 126,620. Owing to the high prices obtained by agriculturists for all their crops in 1916 there was a distinct revival of land purchase among those who form the bulk of the bank's clients.

The following table summarizes the bank's liabilities and assets in various years since its foundation :

Liabilities

	31 January 1917 £. E.	31 January 1916 £. E.	31 January 1915 £. E.	31 January 1914 £. E.	31 January 1910 £. E.	31 December 1905 £. E.	31 December 1903 £. E.
Capital	3,646,500	3,646,500	3,646,500	3,646,500	3,646,500	3,646,500	1,699,530
Reserve funds	1,674,472	1,668,343	1,587,777	1,289,582	701,515	143,964	14,593
Total capital and reserve	5,320,972	5,314,843	5,234,277	4,929,082	4,348,015	3,790,464	1,714,033
% of total liabilities .	42.6	43.5	43.8	41.8	38.9	54.1	75.1
Debentures	6,405,750	6,405,750	6,405,750	6,405,750	6,405,750	2,437,500	
	531	524	535	542	573	348	
Sundry creditors	166,631	135,247	110,686	120,219	107,473	553,722	462,212
%	1.3	1.1	0.9	1.0	1.0	8.0	20.0
Interest on loans accrued	85,337	93,352	104,853		165,655	87,387	36,833
%	0.7	0.7	0.9	1.0	1.5	1.2	1.6
Miscellaneous	145,379	97,321	85,510	28,620	13,338	7,951	6,890
%	1.2	0.8	0.7	0.2	0.1	0.1	0.3
Profit balance	355,048	183,306	32,256	208,934	132,769	122,181	66,489
%	2.9	1.5	0.2	1.8	1.2	1.8	2.8

Assets.

Cash	1,488,054	1,356,956	418,823	795,477	1,425,302	776,001	15,384
% of total assets . . .	11.9	11.1	3.5	6.7	12.8	11.1	0.7
Investments	3,616,246	2,530,674	2,423,908	2,210,093	209,781	20,387	—
%	28.9	20.7	20.2	18.7	1.9	0.3	—
Loans etc.	5,584,168	6,136,968	6,809,787	7,185,679	8,155,417	5,765,762	2,195,842
%	44.8	50.2	56.8	60.8	72.9	82.4	96.1
Discount	570,010	579,989	589,631	598,946	650,443	266,480	17,131
%	4.6	4.7	4.9	5.1	5.9	3.8	0.8
Instalments overdue etc.	1,052,831	1,443,280	1,531,465	804,783	442,402	28,908	1,472
%	8.4	11.8	12.9	6.8	3.9	—	0.4
Interest on loans accrued	85,337	93,353	104,853	118,387	165,655	87,387	36,833
%	0.7	0.8	0.9	1.0	1.5	1.2	1.6
Bank premises	82,471	88,599	94,865	97,628	124,000	54,370	17,735
%	0.7	0.7	0.8	0.9	1.1	0.8	0.8

ITALY.

THE "BANCA DI CREDITO AGRICOLA" IN TUSCANY. — *Relazione del Consiglio di amministrazione. Esercizio 1917. Florence, 1918.*

At the end of 1913 the representatives of some of the agricultural institutions of Tuscany began to do propaganda work for the constitu-

tion of an agricultural bank of which the need was much felt in this district. Such an institution was founded in October of the same year in the form of a joint-stock co-operative society with a capital of 6,000 liras. It proposed to afford agricultural credit to all classes of producers. The members, who at first numbered 25, had reached the number of 403 on 31 December 1916. They then held 858 shares corresponding to a capital of 85,800 liras. On 31 December 1917 they numbered 472 and had a subscribed capital of 101,100 liras. In 1917 more than 500 applications for loans, of a total sum of 1,684,976 liras, were received, as against 568,483 in 1915. The deposits on current account amounted on 31 December 1916 to 93,725 liras and on 31 December 1917 to 136,581 liras. The total sum deposited during the year we are considering reached 878,926. The year closed with a profit of 5,144 liras.

This bank has not limited itself to the function of affording credit, but has made itself, to meet the needs of the time and place, an active centre for all initiative taken in the matter of organizing agricultural trade and industry. It has associated agriculturists and brought them into direct contact with institutions concerned with consumption, thus saving them from exploitation by dishonest middlemen. The various kinds of initiative it has taken include the formation of the *Società fra proprietari di boschi per lo smercio del legname*, or Society of Owners of Woods for the Sale of their Timber. A consortium of producers for the direct sale of their produce on the market of Florence is also in course of formation.

SPAIN.

ACTIVITY OF THE PÓSITOS IN 1916. — *Actividad de los Pósitos durante el ejercicio de 1916. Delegación Regia de Pósitos. Memoria que lleva al gobierno de S. M. el Delegado Regio. Madrid 1917.*

We borrow from a memorial as to 1916, which the Royal Delegation of the Pósitos has published, the following data showing the activity of these old institutions of agricultural credit from which the rural element in Spanish Society has in other times derived so much profit (1).

In the year we are now considering total receipts amounted to 600,535.36 pesetas, and disbursements to 540,999.82 pesetas, so that there was a credit balance of 59,535.54 pesetas.

The total loan operations effected covered 25,087,411.25 pesetas; of which sum 21,419,604.83 pesetas was the amount of loans granted, and 3,667,806.42 pesetas that of deferred repayments and renewals of loans. These figures are less by 939,446.97 pesetas than those of the preceding year.

Repayments amounted to the total sum of 20,624,442.42 pesetas of

(1) For the origin, the historical development and the present organization of the Pósitos see our issues for January 1914 and March and December 1915 (*Monthly Bulletin of Economic and Social Intelligence*).

which sum 19,133,269.45 pesetas represented 114,931 voluntary repayments, and 1,491,172.96 pesetas represented 10,441 forced repayments.

At the close of the year in question the capital of the *Pósitos* amounted to 94,107,116.68 pesetas, distributed as follows: 76,137,211.17 pesetas were held by 244,946 debtors; 12,189,111.35 pesetas were in hand; 5,780,794.16 pesetas were held in securities and inventoried property.

Old debts, of which a good number represent fictitious sums, difficult of recovery, and originated before the creation of the Royal Delegation of the *Pósitos*, numbered 108,783 and amounted to 49,644,374.07 pesetas at the end of 1916.

To conclude these brief notes, we will give comparative figures as to loans granted and renewed by the *Pósitos* in the five years from 1912 to 1916, and as to the repayments effected in that period.

Loans.

Year	Granted pesetas	Renewed pesetas	Total pesetas
1912	18,257,369	3,169,335	21,626,705
1913	16,812,287	4,545,494	21,357,782
1914	19,194,495	4,079,995	23,274,491
1915	17,907,822	4,607,253	22,514,075
1916	21,419,605	3,667,806	25,087,411

Repayments

Year	Voluntary pesetas	Forced pesetas	Total pesetas
1912	14,643,679	1,697,406	16,331,086
1913	16,137,845	1,127,157	17,265,003
1914	15,783,510	1,177,688	16,961,148
1915	17,314,781	1,203,573	18,515,354
1916	19,133,269	1,491,173	20,624,442

Part IV: Agricultural Economy in General

AUSTRALIA.

AN INTERESTING AWARD AFFECTING LABOUR IN SHEEPFARMING.

SOURCE:

The Pastoral Review, Vol. XXVII, Nos. 4, 5, 6 and 7, 16 April, 16 May, 16 June and 16 July 1917. Sydney and Melbourne.

A recent dispute has ended in an award which establishes the terms on which Australian sheepfarmers, that most important class of the citizens of the dominion, may engage labour. The Australian Workers' Union on the one hand, and the Pastoralists' Federal Council of Australia, the United Pastoralists' and Grazing Farmers' Association of Queensland, the Graziers' Association of New South Wales, the Pastoralists' Association of South Australia, the Pastoralists' Association of West Darling and the Pastoralists' Union of Southern Riverina were in conflict. The case was tried before the Court of Conciliation and Arbitration at Sydney.

An award of 1911 had established conditions for certain classes of employees. The extension of the regulation of rights and duties, affecting respectively employees and employers, and the rate at which other categories of labourers were to be paid in the sheepfarming industry, were the subject of the dispute. We will consider it merely in so far as its results are concerned, disregarding its aspect as a class struggle.

The terms which have been fixed are of great interest as affording an example of an extremely minute and detailed agreement which governs the relations of a considerable group of federated agricultural labourers and those who may be called their united employers, the latter also being represented by their unions or associations in the various States of the commonwealth. European countries afford no example of an agreement of an equally large bearing or equally precise as to its clauses. We therefore think it well to reproduce almost completely the provisions of this Australian award, which will remain in force until 1920 when it may be recast.

§ 1. THE EMPLOYEES' DEMANDS.

The claims of the employees on sheepfarming stations, which the Australian Workers' Union formulated, aimed at bettering the conditions of their life as well as at securing higher wages for them. Essentially they have been determined by the rise in the cost of living which has followed on the war, a rise which caused the pressure brought to bear on the sheepfarmers' associations to be irresistible.

As regards their general living conditions the shearers asked that each man should be provided with a fibre or kapok mattress, that the employer should engage a man who would keep the huts in order while shearing was in process and pay him a shed hand's wages, and that the employer should provide a properly stocked medicine chest and place a clock in the shearing shed. They asked that the hours of labour of all station hands should not exceed forty-eight in one week and should cease at noon on Saturdays. No sheep suffering from an offensive wound or sore or maggots or corruption was to be brought into the shed. Shearers were to have the right to refuse to shear sheep affected with *prickly pear*, and were to receive extra pay if they consented to shear them.

The workers also asked that cooks should be paid at a fixed rate, that the conditions on which shed hands were employed should be modified, and that station hands should receive certain notable benefits. For this latter class minimum rates of weekly pay, additional to board and lodging, were fixed as follows, irrespectively of age : boundary riders, 40s ; bullock, horse, camel and mule and donkey drivers, stockmen, musterers, rabbit poisoners, prickly pear cutters, lamb markers, tank sinkers, dam makers, well borers' labourers, pick and shovel men and sheep drovers, 50s ; carpenters, blacksmiths, saddlers, cooks, cattle drovers, 50s ; married couples, £150 a year and double rations ; all other classes of station hands, classified as " general station hands ", 50s.

The union also demanded that shearers, wool pressers, etc. should be paid according to a certain scale.

The case came before the Court of Conciliation and Arbitration in April 1917, after several vain attempts to reach an amicable settlement. The importance of the agreement in question appears from the fact that the Australian Workers' Union, which was the claimant, has nearly 73,000 members in whose name it imposed conditions. The union's claims were examined very carefully ; evidence given by the Commonwealth Statistician as to the increased cost of living was taken into account ; and the award fixing rates of pay was given only after exhaustive discussion had taken place. It may therefore be held to be fitted to the present conditions of labour on Australian sheepfarms.

§ 2. THE NEW AWARD AS TO EMPLOYMENT ON SHEEPFARMS.

The following are the chief provisions of the new award governing the relations between labour and capital in the sheepfarming industry.

Before any member of the Australian Workers' Unions is employed for hire, by or on behalf of any member of the employers' associations already named, who are respondents in this case, on shearing, crutching (1), wiggling (2) or ringing (3), or as shed hand, general hand, woolpresser or dumper (4) or employer's cook for the classes of employees cited, a written agreement shall be signed by the member of the workers' union concerned and by his employer.

This provision also applies to persons employed on scouring wool.

No respondent in the case shall permit any of the functions of these kinds of employees to be exercised on his station by a contractor or any other person except in accordance with the terms and conditions of the award and on the same terms as though the contractor or other person were a respondent and bound by the award.

The terms on which labour may be hired are the following ;

Shearers are to receive the following minimum rates of pay :

If they are not given rations of food : for shearing flock sheep (wethers, ewes, lambs), 30s. per hundred ; for shearing rams over six months old, other than special stud rams, and ram stags, 60s per hundred ; for shearing stud ewes and their lambs, other than special stud ewes. 37s 6d per hundred ; for shearing special studs, pay as specially arranged but not less than 17s a day additional to cooked rations of food, shearing requisites being provided.

If they are given rations of food they receive these rations of food less 20s a week.

" Ram stags " are rams which have been castrated after they are eighteen months old ; and " stud ewes " are ewes from which rams are bred for sale or use on stations.

The minimum rates of pay for crutching, wiggling or ringing at sheds or to employees other than station hands are the following :

If rations are not provided : for crutching between the legs only, 6s per hundred ; for all other crutching, 7s 6d per hundred ; for wiggling or ringing, 3s 6d per hundred ; for either wiggling or ringing in addition to crutching, 1s per hundred additional to crutching rate ; for wiggling and ringing, 5s 6d per hundred ; for wiggling and ringing in addition to crutching, 1s 6d per hundred additional to crutching rate.

If rations are found 17s a day ; or if piece work rates are paid : for crutching between the legs only 5s per hundred ; for all other crutching 6s 6d per

(1) To " crutch " is to remove the dirty wool about the hoofs of sheep

(2) To " wig " is to shear the head of a sheep

(3) To " ring " is to trim a fleece.

(4) To " dump " is to press together two balls of wool until they are reduced to the volume of one.

hundred ; for wiggling or ringing 3s per hundred ; for either wiggling or ringing in addition to crutching, 9d per hundred additional to the crutching rate ; for wiggling and ringing 5s per hundred ; for wiggling and ringing in addition to crutching, 1s 3d per hundred in addition to the crutching rate.

The minimum rates to be paid to those acting as shed hands or being generally useful during shearing or crutching are: to adults £3 a week and keep ; to boys between 18 and 21, 37s 6d a week and keep ; to boys under 18, 30s a week and keep ; for overtime, pay at the rate of one and a half times the ordinary pay for the first two hours and double the ordinary pay afterwards.

The minimum rates to be paid to woolpressers, if the Ferrier, the Rack and Pinion or the Adelaide Box Press be used, are the following :

If rations be not provided : For greasy wool pressed by hand, 7 $\frac{1}{4}$ d per cwt. or 2s per bale ; pressed by hand and also dumped, 9d per cwt. or 2s 4 $\frac{1}{2}$ d per bale ; pressed by power 4 $\frac{3}{4}$ d per cwt. or 1s 3 $\frac{1}{2}$ d per bale ; pressed by power and also dumped, 6 $\frac{1}{2}$ d per cwt. or 1s 8 $\frac{1}{2}$ d per bale.

For washed wool pressed by hand, 10 $\frac{3}{4}$ d per cwt. or 2s 3 $\frac{1}{2}$ d per bale ; pressed by hand and also dumped, 1s 1 $\frac{1}{2}$ d per cwt. or 2s 9d per bale ; pressed by power, 7d per cwt. or 1s 5 $\frac{1}{2}$ d per bale ; pressed by power and also dumped, 8 $\frac{1}{2}$ d per cwt. or 2s 1 $\frac{1}{2}$ d per bale.

The weights mentioned are the net weights of the wool.

The pressing of wool does not include weighing, branding or stacking.

A bale is to be treated as dumped if it is pressed to 18 cubic feet or to a height of 3 feet 3 inches.

For pressing by any other press than those mentioned an extra 1d per cwt. or 3d per bale is paid.

If dumping is done with an Adelaide Box Press the rate of pay is less by 1d per cwt. or 3d per bale.

But if the total sum which the woolpresser would receive under these rates is less than 95s per week of employment, the employer shall pay the deficiency to the employee.

If rations be provided these rates are less by 20s a week.

For time work : £4 a week and keep.

When wool scours are held on stations the minimum rates to be paid to those working on them are the following :

For adults, £3 a week and keep ; for boys between eighteen and twenty-one, 37s 6d a week and keep ; for boys under eighteen, 30s a week and keep ; for overtime, one and a half times the usual rate for the first two hours and double the usual rate afterwards.

For cooks: 6s per week for every man for whom cooking is done and keep, or 72s per week and keep.

But if the total sum a cook would receive when paid at the former of these rates be less than 72s a week, the employer shall pay him the deficiency.

When an employer has mixed functions (*e. g.* as woolpresser and shed hand) he shall be paid as though he discharged only the most highly paid

of his functions. For the purpose of this clause weighing, branding and stacking shall be treated as functions of shed hands.

Of every ten pens used during shearing or crutching, at least one shall be given to or reserved for a learner.

The minimum rates to be paid to station hands other than boundary riders are the following : 63s per week without keep ; 48s per week with keep, but for boys between eighteen and twenty-one 20s per week with keep and to boys under eighteen only 15s per week with keep.

The minimum rates to be paid to boundary riders are 55s per week without keep and 40s per week with keep.

But wages may be paid to station hands in kind, that is to say in the form of allowances and perquisites, up to a value not exceeding 30s a week. The value of the allowances or perquisites is to be fixed from time to time by an agreement between the employer and the employee to which the claimant organization assents in writing, or failing such an agreement by the appropriate Board of Reference.

In the case of station hands working at or about the homestead, hours of duty shall not exceed fifty-two a week without payment for overtime which shall be at a rate one and a half times the ordinary rate.

Station hands shall be entitled to holidays, without deduction of pay, on Christmas Day, Boxing Day, New Year's Day, Good Friday, Easter Monday, Eight Hour Day, the King's Birthday, and any day fixed for the Federal or State elections, or on such other day as the employer and employee may mutually agree to substitute for these. The holidays specified mean the days so observed in a district. An employee called upon to work on a holiday to which he is entitled shall be paid for the whole day at a rate one and a half times the ordinary rate.

Old and infirm employees who act as shed hands, are generally useful during shearing or crutching, or work at a wool scour or as station hands, and are unable to earn the fixed minimum rate, may be paid at a lower rate, to be fixed with the consent of the claimant organization by a written agreement signed by this organization or by its authority, or such rate may be fixed with the written consent of the appropriate Board of Reference. The consent in writing must in either case accompany a statement of the specific ground (age, slowness, infirmity or other) on which it is granted and the minimum rate permitted, and it must apply to no more than one year and no more than one employer.

§ 3. THE BOARDS OF REFERENCE.

Seven Boards of Reference are established for the following districts : 1) the West Darling district as defined by the rules of the Pastoralists' Association of West Darling ; 2) the rest of New South Wales except Southern Riverina as defined by the rules of the Graziers' Association of New South Wales ; 3) the State of Victoria and the Southern Riverina district as de-

fined by the rules of the Pastoralists' Union of Southern Riverina; 4) the State of South Australia; 5) the Cook, Burke, North Kennedy and Gregory North districts of Queensland, as defined in the existing State land Acts 6) the Leichhardt, South Kennedy, Port Curtis and Mitchell districts of Queensland, as defined in the same Acts; 7) the Gregory, South Warrego, Maranoa, Burnett, Moreton, Wide Bay and Darling Downs districts of Queensland as defined in the same Acts.

A board shall consist of two persons to represent employers and two persons to represent the claimant union; except in districts 1), 5) and 6) where it shall consist of one person to represent employers and one to represent the claimant union, and where the Registrar may fill vacancies in the board or, at the request of any party to the award, substitute for any member thereof another member in the same interest.

The board is to meet when and where the members arrange, or, failing such arrangement, as the Registrar or Deputy Registrar of the State appoints.

If the board be equally divided on any question and call on the Registrar for his decision, he or his nominee for the occasion shall be a member of the board.

The following functions are assigned to each board :

a) That of deciding whether any rations or living accommodation supplied or to be supplied by any respondent are good and sufficient ;

b) That of deciding whether the rate at which the cook of a joint mess is paid or a scale of rations observed is too high, and if so by how much it is too high ;

c) That of deciding whether an employer keeps or has kept a proper and sufficient stock of the simpler medical and surgical remedies, or whether he sells or has sold such remedies at cost price added to cost of carriage ;

d) That of ascertaining the value of perquisites or allowances given or to be given to station hands in part payment of wages ;

e) That of fixing a lower rate of wages than the prescribed minimum rate in the case of the employee unable to earn such minimum.

As regards b), if the board find the rate at which the cook of the joint mess is paid or the scale of rations observed is too high, the claimant organization undertakes to pay to the employer the amount of the excess as assessed by the board.

"Keep" is stated to mean "good and sufficient living accommodation and good and sufficient rations cooked, so far as necessary, by a competent cook", except in the case of station hands in which "it does not include accommodation under a roof or cooking when the circumstances render such accommodation or cooking impracticable".

The term "station hand" does not apply to "female domestics working only at the homestead or any male domestic who has no duties outside the house".

The award immediately, on 28 June 1917, affected rates of pay, except in the case of station hands in which it became operative after 1 January 1918.

* * *

The rate at which agricultural labourers in Australia are paid under this award is the same rate as that already applicable in the case of town workmen, the minimum being in both cases 63s a week. It is the first time this parity of treatment has been realized. We must add that the measure is not only due to the generally increased cost of living which has resulted on the war. It is also in part an effect of the scarcity of labour which has followed on enlistments, and which it seeks to mitigate by offering to rural labourers similar conditions to those enjoyed by town workmen.

GREAT BRITAIN AND IRELAND.

SMALL HOLDINGS IN ENGLAND WITH PARTICULAR REFERENCE TO OXFORDSHIRE.

SOURCE:

ASHBY (Arthur W.): *Allotments and Small Holdings in Oxfordshire*, The Clarendon Press, Oxford, 1917.

§ 1. THE DECLINE OF THE SMALL LANDOWNER.

In the first three quarters of the nineteenth century the agricultural production of England was largely increased; and this increase was the accompaniment of a change in the agrarian system, the alteration from the system of small to that of large farms. The following circumstances are cited as causing the decline of the small cultivating landowner which allowed his holding to be merged in a large farm:

1. Some of his rights were indefinite and may have been lost during enclosures of land under Acts of Parliament or on the occasion of disputes.

2. When allotments were made after enclosures the overhead and direct expenses of the process fell more heavily on small than on large owners.

3. The class of labourers who at the same time worked for wages and owned some land was adversely affected by the fall of wages at the end of the eighteenth century, and many of its members were obliged to sell or mortgage their small properties.

4. Small owners or tenants who cultivated their holdings without employing labour outside their own families suffered by the system of subsidizing wages by poor rates, for they were compelled to pay poor rates and yet derived no benefit from them.

5. Owners occupying their own small holdings were led to mortgage these during the period of high prices in the earlier nineteenth century by the cost of enclosures and improvements, their desire to buy more land or the necessity of paying legacies left by their fathers. In the period of falling prices these mortgages were a source of weakness.

6. Some small owners sold their land because they wished to invest money in industries other than agriculture; a greater number because they wished to become tenants of larger farms, capital invested in land being less productive than capital invested in farm stock. They found their market among capitalists who wished for a safe investment and capitalists acquiring land in order to build up for themselves a social position.

7. The high prices of land made arable farming the most profitable form of agriculture, and it was one in which considerable economies could be effected by production on a large scale.

8. Between 1790 and 1845 there were frequent and violent changes in prices which allowed only strong alert men in any class of cultivators to maintain their position.

9. Between 1760 and 1845 there was an almost universal tendency towards production on a large scale. New and strong competitive forces were rapidly clearing away all customary supports and defences, and in consequence both farming methods and the agricultural class were subject to new and rigid tests.

The great objections to the new prevalence of large leasehold farms are first that it disturbed the distribution of wealth, making the cottager poorer than before, at least as compared with the farmer and with the landowner; secondly that a landless labourer is widely held to be less valuable as a citizen than a small landowner; and thirdly that a place as producer of poultry, butter and cheese, bacon and vegetables which the smallholder was fitted to fill was left vacant on his disappearance.

It is remarkable that the process of capitalizing agricultural production and engrossing farms went no further than it did. Farmers did not seek to hold more land than they themselves could manage and capitalize. The limit of the engrossing movement seems to have been reached about 1875, and in 1885 it was stated that "the tendencies of the day are running counter to the large farm system in favour a quarter of a century ago". Farmers, in part perhaps because they did not anticipate the competition they eventually encountered from importers of American wheat and beef and Australian mutton, never adopted the system of management common in industries other than agriculture.

§ 2. THE LANDLESS LABOURER AND THE DEMAND FOR SMALL HOLDINGS.

The disappearance of the small owner left the large landowners, the tenant farmers and the landless labourers who worked for wages as the only important representatives of the agricultural interest in England. The improvement in agricultural methods effected in the earlier nineteenth century benefited the two former but not the last-named class. The labourer did not receive his due share of the results of progress. The Report on Labourers' Wages in 1824, that of the Poor Law Commission a decade later, the Reports on Employment of Women and Children in Agriculture in 1843 and 1867, and the articles of James Caird in 1851 all bear witness to this fact, at least as far as the midland, southern and western counties were concerned.

The industrial worker who lost his economic independence sometimes found a substitute for it in association with his fellows. The weaver who had to abandon his own hand-loom and become a factory worker might

join a co-operative or friendly society ; and he thus could become part of a unit larger than a family whose accumulated force was one with which to reckon. But it was difficult for the dispossessed agricultural labourer to combine with others because the members of his class were widely scattered over the rural areas. Some experiments in association were failures. The effort of the Dorchester labourers to form an union in 1834 was so successfully checked that no new attempt in the same direction was made until in 1871 the agitation began for a Herefordshire union and in 1872 the National Union was organized in Warwickshire. This movement of the 'seventies was handicapped by the condition of the labourers : their wages allowed no margin for subscriptions to an association ; they were uneducated, in many cases quite illiterate, and thus not equal to the work of organization. In spite of these causes of weakness the movement met with initial successes, but it failed ultimately because of the disorganization of the agricultural industry brought about by the loss of capital which arose out of the wet seasons and the influx of foreign produce in the 'seventies. The supply of resident labourers came to exceed the demand, and there was a reversion among them to individualistic methods, to competition which was accompanied by reduced wages. The family became once more the sole economic unit in agriculture.

The demand which afterwards arose among labourers for small holdings has been of two kinds. First there has been a demand for a small holding of some five acres which is like that for allotments (1) in that it arises from the necessity of supplementing inadequate wages. Secondly there has been a demand for small holdings up to 30 acres in extent and sufficient to support a family ; and this want springs from a desire for economic and moral independence.

It is natural that the demands of both kinds should be keenest where agricultural wages are lowest. The labourers' movement of the 'seventies, the movement for allotments and the movement for small holdings are alike in that they have been largely confined to the counties in which little has been done to improve the economic position of the labourer. In 1907 the average weekly earnings of ordinary farm labourers in England were 17s. 6d. In twenty-one counties in which this average was exceeded 294,400 males were employed on agriculture in addition to bailiffs and foremen. In these counties 3,669 agricultural labourers, or fifteen per thousand of the total number, applied for small holdings between 1907 and 1914, and the number of holdings established was sufficient for ten per thousand. In the nineteen counties in which the average earnings were below the average there were 294,200 agricultural labourers, and of this number 7,393 or more than twenty-five per thousand applied for holdings between 1907 and 1914, and the number established would provide for twenty-eight per thousand. These facts appear clearly from the following table :

(1) See the article in our issue for February 1918, page 164.

Relation between Rates of Wages and the Demand for Small Holdings.

		Average weekly earnings of an ordinary labourer	Number of men employed	Number who applied for small holdings between 1907 and 1914	Percentage of men employed who thus applied	Number of holdings provided between 1907 and 1914	Proportion of holdings to number of men employed
S. D.							
Counties in which earnings were above the average.							
Durham	21	0	5,723	57	0.9	105	1.6
Northumberland	21	2	7,383	144	1.9	76	1.0
Derby	20	5	7,763	21	0.3	61	0.8
Middlesex	20	3	4,123	20	0.4	18	0.4
Yorks. West Riding	20	0	19,807	74	0.3	193	0.9
Lancashire	19	10	20,050	117	0.5	70	0.3
Yorks. North Riding	19	7	12,066	15	0.1	40	0.3
Lincoln	19	4	38,866	1,094 (1)	3.8	618	1.5
Holland	—	—	—	730	—	—	—
K. Steven	—	—	—	76	—	—	—
Lincoln	—	—	—	235	—	—	—
Nottingham	21	5	4,552	21	0.2	60	0.6
Cumberland	—	—	6,572	27	0.4	31	0.4
Yorks. East Riding	3	—	14,033	221	2.0	270	1.9
Westmorland	1	—	2,215	7	0.3	9	0.4
Cheshire	0	—	14,448	319	2.2	183	1.2
Kent	10	—	32,656	179	0.5	130	0.3
Leicester	9	—	8,477	64	0.7	134	1.5
Surrey	9	—	10,230	16	0.1	109	1.0
Stafford	8	—	12,545	104	0.8	109	0.8
Shropshire	0	—	13,693	125	1.4	93	0.6
Sussex	0	—	21,253	58	0.2	42	0.2
Devon	0	—	21,444	500 (1)	2.3	485	2.2
Cornwall	7	—	10,430	356	3.4	152	1.4
Total			213,408				
Counties in which earnings were below the average.							
Hampshire	17	5	19,492	240	1.2	201	1.0
Somerset	17	3	18,057	188	1.0	625	3.4
Warwick	17	2	11,090	81	0.7	129	1.1
Hereford	17	1	8,922	139	1.5	73	0.8
Rutland	17	0	1,939	33	2.0	28	1.7
Buckingham	16	11	11,469	132	1.1	218	1.9
Hertford	16	10	11,362	77	0.6	177	1.5
Northampton	16	9	13,621	59	1.2	141	1.4
Peterborough	—	—	—	114	—	56	—
Berkshire	16	5	10,920	52	0.4	90	0.8
Essex	16	4	32,462	184	0.5	214	0.6
Bedford	16	3	9,593	646	6.7	647	6.7
Cambridge	16	5	19,448	911	14.7	1,194	11.5
Isle of Ely	—	—	—	1,960 (1)	—	1,051	—
Worcester	16	3	11,445	296	2.5	332	4.6
Huntingdon	16	2	6,395	521	8.1	449	7.0
Dorset	10	1	11,310	67	0.5	105	0.9
Wiltshire	16	0	17,806	207	1.1	261	1.4
Suffolk	15	0	30,366	294	0.9	342	1.1
Norfolk	15	4	36,457	961	2.6	1,375	3.7
Oxford	14	11	12,336	231	1.9	245	1.9
Total			294,277		2.5		

(1) Number uncertain.

It should be remembered that not all small holdings are held by labourers as supplementing their wages and by persons whose sole income they constitute. The following table shows the predominant source of the income of the persons who in 1914 occupied the 360 small holdings existing in the county of Oxford.

Class of occupiers	Number	Percent. of total
Labourers	59	16
Persons depending on their holdings (excluding poultry specialists and market gardeners)	76	21
Market gardeners	28	7
Poultry farmers	16	4
Pensioners and persons having private means.	51	14
Artisans	38	10
Professional persons.	8	2
Traders	23	6
Hauliers and carriers	47	13
Publicans	20	5
Farmers who have annexed small holdings to larger farms	8	2
Unclassified	4	0
	360	100

Thus only 46 per cent. of the small holdings in Oxfordshire were occupied by agricultural labourers and by persons who had no source of income outside the holdings. In some cases the labourers use their holdings as the means to acquire others which are self-supporting. But in Oxfordshire, the county as to which we have detailed facts, the small holding has little importance as a step in the social ladder of the agricultural class. Not more than 4 or 5 per cent. of the labourers can become self-supporting cultivators. In this connection the special conditions prevailing in this county of low wages and large farms should be remembered.

In Oxfordshire large farms of 300 acres or more cover more than 40 per cent. of the total acreage, in all England and Wales only 24 per cent. of the total acreage. Farms of from 50 to 300 acres also cover in Oxfordshire a larger acreage than the average for all England and Wales. It is therefore not surprising that while 14 per cent. of the whole area of England is given up to holdings between five and fifty acres in extent, only 8 per cent. of the area of Oxfordshire is so occupied. This fact must be borne in mind if any idea as to English small holdings in general is to be derived from the following tables:

Thus it appears that in Oxfordshire the large majority of occupants of small holdings of all sizes rent them, and that the number owning them has diminished both relatively and absolutely.

§ 3. THE VALUE OF SMALL HOLDINGS.

There are four motives which mainly influence the advocates of an increased productivity of land. They desire that the country shall directly maintain the largest possible rural population; that it shall yield the greatest possible gross amount of food; that it shall give the greatest possible net income to those cultivating it; or that it shall yield the greatest possible net amount of food to be sold for the sustenance of the industrial population.

The two first of these both arise out of the presumption that the rural population is more valuable to the State than the town population.

Mr. Arthur Ashby, who has made an exhaustive enquiry into the small holdings of Oxfordshire, does not however rate the small holder highly as a citizen. "Where a man climbs from the allotment to the small holding, and from the small holding to the farm, the early stages frequently have been made possible with the assistance of some subsidiary industry or petty business. During this period, which may last for many years, the cultivator becomes accustomed to making small economies and small cautious investments; in fact thrift and caution are the keynotes of the management. When the passage is made from the holding of thirty acres or so to 100 acres or more, the cultivator is usually past his prime as a worker, his mind is stereotyped by his former cautiousness and frugality, and the effect of his life's experience is to make him a very conservative farmer and unprogressive as a business man". There is a danger that the advantages of industry and thrift may be purchased at too heavy a cost. Too continuous application to work sometimes hardens and narrows a small holder's character.

On the other hand, from the point of view of the new generation, it is important to notice that in Oxfordshire the small holders occupy larger houses, have better supplies of fuel and better and more food — especially vegetables, bacon and eggs, and milk and butter where cows are kept — than the farm labourers.

As regards the productivity of small holdings this varies with the use to which they are put. In producing *vegetables, fruit and flowers* on small holdings the cultivator has more advantages over the large unit than in following any other system of cultivation. A high ratio of capital and labour to acreage prevails, and close detailed attention is necessary to success; and although the use of machinery on larger market-gardens may have its advantages, many of the necessary processes need highly skilled manual labour. A family is therefore well suited to the work of a small holding used as a market-garden, and being directly interested in its yield is usually stimulated to work on it industriously. Market-gardening is however con-

ditioned by an ever increasing demand for quality and quantity. In this respect the small holder is under a handicap: he often has not the time, even if he have the ability, to watch the constant variations of the market closely; his consignments are small and his costs of transport proportionately heavy; his methods of preparing and packing are sometimes unsuitable or clumsy. It therefore happens frequently that he is at the mercy of the salesman who may or may not have time and inclination to instruct him. The area of the most successful small holders' market gardens is from four to ten acres.

Poultry are generally regarded as stock particularly suited to small holdings; but it was found that in Oxfordshire the small holders themselves, except a few specialists, are too apt to look upon them as unimportant accessories. Little trouble is taken in selecting breeds either for laying or for being fattened; and fowls are rarely crammed. Some few holders who make a speciality of poultry were however producing eggs and chickens in 1914 to the gross value of £70 or more an acre. This represented the most intensive agricultural production in the county. It required considerable skill, experience and capital; how much of the last-named appears when it is found that a holder producing birds and eggs to the value of £200 a year might earn no more than 15s. to £1 a week. From one to three acres is the most usual size of an intensive poultry holding in Oxfordshire; and this, if sufficiently stocked, is enough to employ one person. On a poultry-farm of more than five acres other stock was invariably found in 1914.

Dairy farming is suitably practised on a small holding if the marketing of the milk and the making and marketing of its derivatives be properly organized. A dairy farm needs the personal and sympathetic supervision which a small holder is likely to give. Milk cannot be supplied from abroad and therefore the small holder has no competitor save the large dairy farmer. The latter has however fairly well filled the market in Oxfordshire; and the small holder's best chance in this county is to produce and retail milk in rural areas where the bulk of the milk produced is sent to large consuming centres. Butter and cheese are largely imported; and in competing with the foreign importer the small holder is necessarily at a disadvantage because his product is not standardized. Where cows are kept mainly or solely to raise stock the small holder has a certain advantage where the rearing of young calves is concerned, especially if he use substitutes for milk. But his facilities of this kind are expensive.

It is recommended that dairy farms be not established on holdings of less than twenty-five or thirty acres; and on holdings of this size only if green crops and roots, to supply extra fodder, be grown on a large part of the land. Otherwise a dairy farm should be at least forty acres in extent. Where stock is raised on a small holding the land should be fertile: otherwise the area of fifty acres is insufficient.

Sheep farming is best followed on holdings of more than fifty acres. If no rough grazings exist a small holder has difficulty in securing a livelihood from the sheep on his land. If there are rough grazings the flocks on them should be grouped if much duplication of labour is to be avoided.

Moreover a small holder very rarely has the highly specialized qualities of a good shepherd.

In the case of *arable farms* small holders suffer from their lack of machinery. A small holder occupying twenty-five acres or more of arable or mixed arable and pasture land can make a living: he keeps two or three cows, he rears young stock, he keeps pigs. But to develop the full capacities of twenty-five acres of arable land he should keep a team of horses which would be idle for about a third of its time, and use harvesting machinery for preparing foods economically. If he have no machines for cutting chaff, cutting roots and grinding corn he must spend long evenings of winter laboriously performing these operations by hand.

Small holdings were in favour in the period of high spasmodic earnings and intermittent employment in agriculture. The small holder could then increase his income by occasionally working for a neighbouring farmer. Agricultural labour has become scarce and employment has consequently been regularized; and it is possible that this may eventually lead to a decline in the demand for small holdings, other than the market-gardens, the poultry farms and the dairy farms which are so situated in relation to markets that they are certainly profitable.

In conclusion something should be said of the class who use their small holdings only as subsidiary means of support. In Oxfordshire they constitute slightly more than half the total number of small holders. Experience and capital being equal, the man whose sole occupation is the cultivation of his land is the best farmer. Among the others the labourer whose holding supplements his wages is usually a keen cultivator. Tradesmen sometimes use a holding solely or chiefly as grazing land; and hauliers and carriers in some cases do the same, thus sacrificing the initial advantage for tilling their holdings which their possession of horses and equipment gives them. Mr. Ashby found in 1914 that some men who used small holdings in Oxfordshire as adjuncts to other businesses should either be deprived of them or else stimulated to make fuller use of them.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

BRAZIL.

LABOUR CONDITIONS IN BRAZILIAN AGRICULTURE — *The Statist*, Vol. XCI,
No. 2031, London, 12 January 1915.

Owing to the war there has been a very important decline in the steadily increasing migratory current into Brazil. In 1913 the immigrants numbered 192,000. During the war their numbers have been as follows :

1914	82,000 persons
1915	32,000 "
1916	34,000 "

By the Italian participation in the war and the emigration of Italian colonists these figures have been further reduced.

On the other hand the greater demand for foodstuffs in Europe has led Brazilian agriculture into quite untrodden paths. The pressure of circumstances has demanded an increase of agricultural labour and the consequent utilization of native labour. An interesting situation has thus arisen for it had been said that the agricultural prosperity of the country was variously tied to the annual immigratory currents.

Of course to Brazil, with her 27 million inhabitants spread over an immense territory, an annual immigration of from 150,000 to 200,000 persons seemed a special benefit. The European newcomers, penetrating further and further inland, tilled the soil, created new riches and developed the country. But there is a difference between the general needs of the country and the wants of the landowners.

Brazil had suffered for centuries, morally and economically, from the evil of abnormal labour conditions produced by slavery. The rapid revolution of 1888 shattered the very basis of her social structure, and immigrants seemed to provide the only way out of the difficulty. Such a view was encouraged by events in the province, afterwards the State, of San Paulo, which foresaw the consequences of emancipation and organized immigration accordingly.

Between 1888 and 1917 Brazil received about 3,000,000 immigrants, the final million reaching the country during the last ten years. These European immigrants used to find employment on the large coffee estates, but their intention generally was to become accustomed to the environment, earn some money, and buy a small holding after a couple of years.

It was a good thing for the country, but a precarious arrangement for the landowners who had to renew their labourers almost every year.

The depression of the coffee industry and its crises determined a still more accentuated movement of colonists towards small holdings. The San Paulo administration, alarmed by the proportions of this movement, organized a scheme for supporting the landowners, and formed "colonial nuclei" of small properties in the coffee district, in order to constitute "workmen nurseries" which would provide agricultural labour during the busy season on the plantations. Several devices were tried to retain immigrants or increase immigration.

A rough idea of labour conditions in Southern Brazil is given by the San Paulo census for 1906. About 325,000 labourers were registered, namely 151,000 Brazilians and 174,000 foreigners. Brazilian labourers were most numerous in the old districts. Among the newly opened areas of the west the following coffee districts are typical:

Municipes	Brazilians	Foreigners
Roberrao Preto (Mogyana Railway)	4,717	16,805
Jahu (Paulista Railway)	2,015	8,535
S. Manoel (Sorocabana Railway).	1,126	6,237

It is no exaggeration to say that in Brazil at the beginning of the war there were about ten million persons on small holdings who did not do 50 per cent. of the agricultural work the nation was entitled to expect of them. This fact was very important to Brazilian economy and should be borne in mind if the effects of the war on the country are to be understood.

The immigration of skilled European labourers, whom for obvious reasons the landowners preferred to employ, the prevailing low wages in agriculture, the low prices of foodstuffs and the difficulty of reaching remunerative markets, to some extent the national listlessness, the almost absolute need of rural banking institutions and rural credit, the want of technical knowledge — these were the chief causes of the inferior position of Brazilian labour.

The war has changed the conditions of Brazilian agriculture: rice, beans, sugar, cotton, maize and other products can be sold at good prices, and consequently there has been in the last three years a rush towards the country and rural enterprise. Further, Brazilian landowners have made the experiment of employing Brazilian labourers and found that to do without them was a mistake. In Minas Geraes, for example, schemes devised for producing rice on a large scale by means of Japanese or Chinese labour were finally carried out by Brazilian labourers with success.

These facts are the natural result of the law of supply and demand. In order that the movement may continue government action is also necessary. San Paulo and Rio de Janeiro already have a special department for the "localization" on small holdings of Brazilian labourers and the provision of work for them. There should be similar institutions in other

States. The establishment of a "colonial nucleus" in every area, of experimental stations provided with modern machinery to teach the unskilled natives, of credit facilities and of cheap transport is the best means of training the national activities to produce efficient and stable labour conditions.

After the war the steady stream of immigrants will undoubtedly once more flow into Brazil, perhaps in increased volume, but it will find a competitor in the native supply of labour which will have a sound economic basis.

CANADA.

I GOVERNMENT REGULATION OF THE PRICES OF FOOD AND VEGETABLES — *The Canadian Horticulturist*, Toronto, November 1917

The chief duties of the Food Controller of Canada are to increase production and to prevent the cornering of food by speculators. He enlisted about the middle of 1917, the co-operation of well informed men from the various provinces and these form a special "Fruit and Vegetable Committee".

This committee has organized in each province a sub-committee including one of its own number, and thus it is able to commit the decision on purely local problems to the provincial subcommittee they concern.

The main work of the committee is to promote production by ensuring that producers receive, as far as possible, a fair profit on their crops. Undue speculation must not be allowed to affect the marketing of crops, and middlemen must be prevented from absorbing an undue share of profits. The committee also aims at facilitating the distribution of crops. Experts have been appointed to supervise the loading and distribution of cars, and they will endeavour to enable crops to be marketed with a minimum risk of loss from frost or heat.

The first matter with which the committee dealt was the marketing of the apple crop, grown, in particular, in British Columbia, Ontario and Nova Scotia. In order to prevent speculation an order-in-council has been passed which compels every wholesale merchant dealing in apples to register at the Food Controller's Office, and to file there a statement as to his purchases, sales, prices, etc. It is believed that this will enable a record of gross profits to be kept. Anyone who deals in carloads of apples will be held to be a wholesale dealer.

In order to find out if the profits of wholesale dealers in fruit are unduly large the business of some twenty of the most important of them has been investigated. Their representatives were questioned at length by the committee and their books and records examined. Contrary to the general opinion, it was found that none of them were making large profits, while many, including several of the largest, were hardly covering expenses. One well known firm, having a turnover of about a million dollars a year, had made a profit of only \$ 1,600 in the previous twelve months. In no case

did the gross profit exceed 11 per cent., while the net profits varied from 1 to about 5 per cent. in the case of the largest firms.

The following figures refer to two large firms.

Firm A.

Year	Percentage of expenses on sales	Net profits
1912	7.7 %	3 %
1913	6.7 %	2 %
1914	7 %	2.5 %
1915	7 %	1.9 %
1916	6.2 %	1.7 %
1917 until July	6.4 %	0.18 %

Firm B.

Year	Gross profit	Net profit
1915	10.75 %	2.42 %
1916	9.14 %	2.26 %

An order is pending which will make 11 per cent. the maximum profit any wholesale dealer can exact in dealing in apples or potatoes.

The data we have given show that the problem Canada has to solve is rather that of increasing production than that of fighting the illicit profits of middlemen.

* *

2. WAGES OF FARM LABOURERS IN MANITOBA.

Crop Bulletin No. 96, recently issued by the Department of Agriculture and Immigration of Manitoba, contains interesting data as to the wages paid to farm labourers in the province in 1917. Throughout the year farm labourers were very scarce and wages unprecedentedly high. The harvest was considerably helped by gangs of town labourers who were organized and sent out to the fields to do stooking. The table we reproduce shows the average monthly wages in the different agricultural seasons in each of the five districts in the province. It is noted in the bulletin that it was impossible to secure an accurate statement of autumn wages as some hands are engaged by the month and many by the day. The figures as to autumn wages in the table are based on the daily wages for a month estimated to include twenty working days.

District	Winter		Seeding-time		Summer		Harvest and autumn	
	Number employ- ed	Average monthly wage	Number employ- ed	Average monthly wage	Number employ- ed	Average monthly wage	Number employ- ed	Average monthly wage
North Western	2,429	\$ 21	5,342	\$ 47	4,582	\$ 45	9,085	\$ 65
South Western	1,478	19	3,040	48	2,789	47	5,804	74
North Central	1,546	23	3,204	45	2,737	46	7,553	66
South Central	1,767	20	2,746	46	2,974	45	5,497	68
Eastern	1,469	22	2,583	41	3,740	42	8,952	59
Total	8,689		16,915		16,345		36,891	

Some 4,919 women servants were employed on the farms in the first and 5,117 in the latter half year. Their average monthly wages from January to June were \$18 in the North Western and Eastern, \$19 in the North Central and South Central, and \$21 in the South Western district. From June to December these average wages were \$20 in the North Western, \$21 in the Eastern and South Central, \$22 in the North Central and \$24 in the South Central District.

GREAT BRITAIN AND IRELAND.

1. A NEW CULTIVATION OF LANDS ORDER FOR ENGLAND AND WALES — *Journal of Agriculture*, Vol. XXIV, No. 11, London, February 1918.

In our issue for August 1917 we showed, in an article called "Agriculture and the War", how the Board of Agriculture and Fisheries was enabled, by an amendment of the Defence of the Realm Regulations, passed on 13 March 1917, to override property rights with a view to ensuring agricultural production in the public interest (1). The powers conferred by the amendment were, as we also explained, given in England and Wales by the Cultivation of Lands Order to the War Agricultural Executive Committees (2). On 11 January 1918 a new Cultivation of Lands Order was issued by which the powers granted by the former order and the amendment were amplified as follows:

1) The committees were already able to take over buildings on land of which they had taken possession, or buildings convenient to the cultivation or adaptation for cultivation of such land. They are now empowered to take possession of any land or buildings required to provide accommo-

dation for persons, machinery, implements, plant, farm produce, stock or animals, employed by the Board of Agriculture, or by the committees on its behalf, for the cultivation of land or the increase of the country's food supply; and the land thus taken over may be retained for any of these purposes. A committee is not however enabled to provide additional buildings for a person who is cultivating land for himself and not on behalf of the board. Inhabited dwelling-houses cannot be taken over, and the consent of the board is still necessary to taking over common land.

2) The committees are further enabled to compel an occupier of any land to repair or remove his hedges and fences, and to clear or repair his field-drains and ditches, whether natural or artificial. Notice may be served on him to do so, as notice to cultivate his land has been served under the earlier order.

3) The Board of Agriculture obtains the power to call for returns from occupiers or managers of any agricultural lands with respect to the cultivation of these or the crops or live stock on them. The board has not delegated these powers to the Agricultural Executive Committees. It proposes to issue and collect forms on which all holders of more than 20 acres will state the area of grass land they have ploughed and the area they have planted with wheat and other crops at the end of every month until the end of April. These returns will be tabulated and the figures for each county will be sent to the Agricultural Executive Committee concerned, for its information.

4) The board obtains power to restrict or prohibit, either generally or within special areas, the cultivation of particular crops, such as mustard or strawberries, or the ploughing up of certain classes of land, such as old leys. This power also has not been delegated.

5) Any negligence or wilful failure to comply with a notice or order under the amended regulations or this order, any obstruction of or interference with executive action under the regulations, a refusal to give up land or buildings of which possession is required under the regulations or the order, or refusal to quit land of which the tenancy is similarly determined, becomes a summary offence. A prosecution cannot however be instituted by an officer of an Agricultural Executive Committee for any such offence without the consent of the Board of Agriculture.

6) If, upon the board withdrawing from possession of land, a tenant resume possession of it, the value to such tenant of the tillage and other operations accomplished by an Agricultural Executive Committee should be claimed from him on the basis on which the value of such works is customarily claimed from incoming tenants. Expenditure on more permanent works, such as repairs to buildings, draining and the clearing of drains and ditches, may however create a value which will have to be apportioned between the landlord and tenant for the purpose of its recovery by the committee. Except where the tenant accepts sole liability, negotiations for a settlement should be conducted at the same time with the landlord and with the tenant.

7) Many drainage authorities established by local Acts have hitherto

been unable to levy rates for drainage beyond a fixed sum per acre or per pound of rateable value. The recent high prices of coal and labour have sometimes caused these limits to prevent the execution of necessary works. The new order therefore empowers the Board of Agriculture to enlarge such limits upon the application of the drainage authority concerned. The power thus to override local Acts cannot be delegated.

*
* *

2. ALLOTMENTS IN ENGLAND AND WALES IN WARTIME. — *The Journal of the Board of Agriculture*, Vol. XXIV, No. 11, London February, 1918.

Allotments in 1916 and 1917. — In the last two years allotments in England and Wales have multiplied at a rate which is characterized as marvellous. It is estimated that their present number is not far short of one million. Their increase is directly consequent on the movement to increase the home production of food which is a result of the war. The new allotments belong to the class which in our previous and general article on this subject (1) we called "garden allotments". They are many of them situated in or near towns.

About 200,000 of the new allotments have been formed under the Cultivation of Lands Order administered by the Food Production Department of the Board of Agriculture; and probably at least as many more have followed on voluntary agreements. As an example of the enormous expansion of the movement for allotments the position in Luton in Bedfordshire may be cited. Before the war there were about a thousand allotments covering 126 acres in this town of 50,000 inhabitants. Since the outbreak of war 952 new plots, covering 93 acres, have been provided as permanent allotments, and 553, covering 37 acres, for temporary cultivation. In other words one in twenty of the population hold allotments. This proportion is however far exceeded in Tenby where 450 out of the 900 householders are said to have allotments. In Wales progress has been almost as rapid as in England. It is in most districts favoured by the landowners, but here and there compulsion has had to be exercised in order to obtain land. At the beginning of the war the total area of the allotments in Llandudno was $7\frac{1}{16}$ acres: at the end of 1917 the urban council had formed 300 war allotments and 34 plots on railway sidings were being cultivated by railway men.

The Food Production Department does not advise that wheat be grown on allotments. It is estimated that from twice to three times as much human food is obtained from such an average vegetable crop as is commonly grown as from an average crop of corn on a similar area. Moreover the risk of losses to corn crops through the ravage of birds, especially in residential districts, and of losses from wind and rain is much greater on a small than on a large area. Vegetables are also less liable than corn to the attacks of wireworm on newly broken land; they suffer less from drought; they

(1) See the article in our issue for February 1918, page 155.

allow several crops to be obtained from one plot during a year ; and their cultivation is especially adapted to the use of the spade.

More than a million tons of vegetables are estimated to have been produced on English and Welsh allotments in 1917 and to have been consumed by the growers and their families. As a consequence the carriage of produce was notably reduced, and thousands of working-class families were supplied more generously than ever before with fresh vegetables.

Plans for 1918. — By common consent supplies of food will be very short throughout the world in 1918, and it is quite possible that the efforts of allotment holders will make all the difference between a reasonably plentiful supply and an extreme scarcity of fresh vegetables. The Food Production Department therefore exhorts every allotment holder to redouble his efforts. Arrangements have been made to supply artificial manure. Every holder who has difficulty in obtaining it locally should apply to one of the approved agents for the sale of artificial fertilizers recognized by his County Agricultural Executive Committee or the Food Production Department. A list of these agents can be obtained from the committee or department. Holders will obtain the most favourable terms by combining to place a large order, as appears from the following prices which have been fixed for sulphate of ammonia bought between January and May of this year :

Price of quantity between	2 cwts. and	1 ton.	18s per cwt.
" " " "	1 " "	2 cwts	19s. " "
" " " "	28 lbs.	1 "	21s. " "

Pamphlets on the use of artificial manure can be obtained freely by applying to the Food Production Department.

To prevent damages to allotments by trespassers the same department is supplying a notice which any holder may expose on his plot, thereby rendering anyone who " enters or remains " on his land or " damages any growing crop or hedge or fence thereon " " liable, on conviction under the Defence of the Realm Regulations, to a fine of £100 or imprisonment ".

The Food Production Department wishes further to increase the number of allotments by at least 50 per cent. this spring. The Rural League, the Vacant Lands Cultivation Society, the Federation of Allotment Holders, the Agricultural Organization Society, the Royal Horticultural Society and other organizations are actively co-operating to secure this end.

Already the borough of Sunderland is acquiring 40 acres to lay out as 560 allotments. At Southwick-on-Wear seven acres are being divided into 100 plots. Twenty-five acres at Coventry have just been cut up to make 350 allotments. Portsmouth has recently enrolled 1,000 new allotment holders, Newcastle-on-Tyne 420, the mining village of Ashington 364, and Port of Blythe in Northumberland 260. On the advice of the Food Production Department Hammersmith has lately laid out 140 plots of 10 rods each and Maidenead 120 covering 8 acres altogether ; Wigton has divided 5 acres into allotments, Carlisle 6 acres into 90 allotments and Kingston-on-Thames

12 acres into 168 allotments. The Leeds authorities are laying out 5,000 allotments of about $\frac{1}{16}$ of an acre each on 333 acres. Among the miners of the north the demand for small plots is keen: at Consett 16 more acres are being divided for 224 applicants; at Blaydon-on-Tyne 11 $\frac{1}{2}$ acres for 161; and at Leadgate 2 $\frac{1}{2}$ acres. When this area has been allotted 900 of the 1,060 householders in these mining towns will hold allotments. The corporation of York has arranged with the Agricultural Executive Committee for the North Riding of Yorkshire that it receive 5 $\frac{3}{4}$ acres of land outside the city to lay out as allotments. A firm in Newark-on-Trent has laid out 8 acres in 112 plots to be cultivated by its workpeople. In Wales in the village of Penrhynside a field of 5 acres has been taken over compulsorily and will be cultivated as allotments by tenants of the parish council. Steps are being taken to respond to 51 applications for additional plots received by the Bangor Allotment Association. Inspectors are employed by the Food Production Department to negotiate for new allotments where an unsatisfied demand for them exists. In one week in January they visited twenty-eight centres of population, and as a result the authorities took measures to acquire 626 acres which would provide 9,106 allotments.

Tradesmen's associations, friendly societies, trade unions, working men's clubs and sporting organizations are asked to organize their members as allotment holders and firms owning unused land to allow their employees to cultivate it in allotments. Local councils are advised to apply for an order of the Board of Agriculture which will allow them to take over uncultivated kitchen gardens belonging to uninhabited houses. Individuals unable to obtain allotments are instructed to apply to the local authorities, and if they do not thus secure land to the Food Production Department, which will immediately enquire into local needs and resources.

UNITED STATES.

1. SLIDING SCALE BONUSES IN THE SUGAR-CANE PLANTATIONS OF HAWAII.—

EMMET (Boris): Profit Sharing in the United States, in *Bulletin of the United States Bureau of Labor Statistics*, No. 208, Washington, December 1916.

A plan providing for a sliding scale of bonuses has been followed in many sugar-cane plantations in the Hawaiian Islands since 1 January 1917. In 1916 the planters decided that the labourers should have a larger share of the unusual prosperity due to the continuance of the European war and the consequent high prices of sugar.

They therefore adopted a more liberal system of giving bonuses than that of 1912. The essential features of the new plan were established as follows:

"The current bonus period from 1 November 1915 to 31 October 1916 will be divided into two parts. The first will include the five months to 1 April 1916, for which the bonus will be settled on 31 October 1916, according to the schedule heretofore existing. For the remaining seven

months from 1 April 1916 to 31 October 1916 the bonus will be based on the schedule hereinafter set forth. Thereafter the bonus period will be for the twelve months to end on 31 October in each year until further notice.

" A) The bonus shall be based on the average of the daily New York market price for 96^o centrifugal raw sugar, duty paid, for the year, as reported to the Hawaiian Sugar Planters' Association by . . . of New York.

" B) If the New York market price for 96^o raw sugar averages for the year be 3.55 cents per pound — \$71 per ton — labourers shall receive a bonus at the rate of 1 ½ per cent. of their wages or earnings as hereinafter set forth, and for every dollar per ton increase over said \$71 per ton the bonus will be increased 1 ½ per cent., as follows :

Market price per pound	Market price per ton	Bonus	Market price per pound	Market price per ton	Bonus
<i>cents</i>	<i>dollars</i>	<i>Percent.</i>	<i>cents</i>	<i>dollars</i>	<i>Percent.</i>
3.55	71	1.5	4.80	96	39—
3.60	72	3—	4.85	97	40.5
3.65	73	4.5	4.90	98	42—
3.70	74	6—	4.95	99	43.5
3.75	75	7.5	5—	100	45—
3.80	76	9—	5.05	101	46.5
3.85	77	10.5	5.10	102	48—
3.90	78	12—	5.15	103	49.5
3.95	79	13.5	5.20	104	51—
4—	80	15—	5.25	105	52.5
4.05	81	16.5	5.30	106	54—
4.10	82	18—	5.35	107	55.5
4.15	83	19.5	5.40	108	57—
4.20	84	21—	5.45	109	58.5
4.25	85	22.5	5.50	110	60—
4.30	86	24—	5.55	111	61.5
4.35	87	25.5	5.60	112	63—
4.40	88	27—	5.65	113	64.5
4.45	89	28.5	5.70	114	66—
4.50	90	30—	5.75	115	67.5
4.55	91	31.5	5.80	116	69—
4.60	92	33—	5.85	117	70.5
4.65	93	34.5	5.90	118	72—
4.70	94	36—	5.95	119	73.5
4.75	95	37.5	6—	120	75—

" And so on in like proportion.

" All labourers on a day-wage basis receiving wages of \$24 per month and under and all short-term contractors shall be entitled to a bonus provided they work, in the case of men, not less than 20 days per calendar month, and in the case of women not less than 15 days per calendar month.

" To these labourers 20 per cent. of their monthly earnings shall be paid monthly on account of the annual bonus due October 31, and if they shall thereafter continue in the employ of the same plantation until the end of the bonus period they shall then be paid the balance of the bonus, if any.

" Cultivating contractors shall be paid a bonus on the basis of wages at the rate of \$24 a month of 26 days in the case of men and \$18 per month in the case of women, provided they work not less than 20 days in any calendar month in the case of men and 15 days in any calendar month in the case of women ".

" None of the above provisions in regard to the payment of bonus shall apply to the contractor whose contracts are settled according to the price of sugar ".

" If the labourer shall have been excused from work by the manager because of physical disability or other good reason, the loss of time caused thereby shall not be construed to deprive him of the entire amount of the bonus, but he shall be entitled to a proportion of the same for the number of days' work performed ".

The various plantations have also adopted another schedule for bonuses to be paid to skilled labourers, from managers downwards. The managers of one of the largest plantations have decided to pay a bonus of 20 per cent. on their earnings of 1916 to employees of this class.

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2. LAND SETTLEMENT IN CALIFORNIA — *California Cultivator*, Los Angeles, San Francisco, 23 February 1918.

The last session of the State legislature of California appropriated \$10,000 to the expenses of maintaining the Land Settlement Commission and enabling it to make a trial of the Australian method of subdividing tracts of land into small holdings, of no more than some 10 acres each, selling these to bona fide farmers, allowing long terms for payment and charging a low rate of interest. Together with this appropriation there was another of \$250,000 for the financing of the movement.

The first land was furnished by Northern California where the board bought 6,000 acres near Chico. A part of this area is already under crop, has been levelled and is ready for irrigation. The price paid, for land, water rights and improvements, was \$100 an acre. The land will be sold on conditions which will do no more than allow the State to get back the money lent to help this development. Amortized payments will be made over a term of twenty years, interest being charged at the rate of 5 per cent. and 3 per cent. towards repayment of the principal. The settler who pays

8 per cent. a year will thus have his land free of encumbrances. The same interest will be charged on money lent to help the building of barns and other improvements. If a settler wishes to secure a longer term for payment he can do so by obtaining a loan from the Federal Loan Bank, but it is not believed that longer terms will be needed.

The applications received show that there is a demand for more land than the State can furnish in this settlement within the limits of the appropriation made.

A circular letter has been sent by the board in Northern California to agricultural engineers and others interested in rural organization and progress. This alludes to the necessity of preparing plans for houses and other farm buildings and the grouping of these. The cost of the farm labourers' houses will range from about \$800 to \$1000; that of the farmhouses may be as much as \$3000. Within these limits it is desired to erect convenient and sanitary dwellings which "have something of beauty". The other farm buildings will include sheds to hold 100 tons of hay, byres for from ten to thirty cows, houses and shed, for as many as 200 hogs, sheds and shelters for as many as 500 sheep.

The board hopes to illustrate by these Californian farm colonies what preliminary study and organization can do to lessen the expense and increase the attractiveness and profit of rural life.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Sixteen other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets;

(b) communicate the above information as soon as possible to those interested;

(c) indicate the wages paid for farm work;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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Canada: Farm Colonies for Discharged Soldiers in Ontario, page 337. — *Great Britain and Ireland*: 1) The Irish Land Commission in 1916-1917, page 338. — 2) Land Settlement by Ex-service Men in England and Wales, page 346. — 3) A Scheme to provide Home-Grown Timber, page 348.

PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown (100 keller) (Austria-Hungary)	=	10 <i>d.</i>	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1 <i>s.</i> 11½ <i>d.</i>	at par
1 Deciatine (2 tchetwert) (Russia)	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ⁸³ / ₆₄ <i>d.</i>	at par
1 Dollar, gold, (\$) (100 cents) (United States)	=	4 <i>s.</i> 5½ <i>d.</i>	at par
1 Drachm, gold, (100 lepta) (Greece)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1 <i>s.</i> 7 ⁵³ / ₆₄ <i>d.</i>	at par
1 Franc (100 centimes) (France)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold, (100 bani) (Rumania)	=	9 ⁸³ / ₆₄ <i>d.</i>	at par
1 Len (100 statinki) (Bulgaria)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Lira (100 centesimi) (Italy)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Litre	=	0.21998	gallons
	=	0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ <i>d.</i>	at par
1 Mark (100 penni) (Finland)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Metre	=	3.28084	feet
1 Milreis, gold, (Brazil)	=	2 <i>s.</i> 2 ⁶¹ / ₆₄ <i>d.</i>	at par
1 Milreis, gold, (Portugal)	=	4 <i>s.</i> 5 ¹⁹ / ₆₄ <i>d.</i>	at par
1 Peseta, gold, (100 céntimos) (Spain)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Peso, gold, (100 centavos) (Argentina)	=	3 <i>s.</i> 11 ³⁷ / ₆₄ <i>d.</i>	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18 <i>s.</i> 0 ¹⁵ / ₆₄ <i>d.</i>	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold, (100 kopeks) (Russia)	=	2 <i>s.</i> 1 ³ / ₈ <i>d.</i>	at par
1 Rupee, silver, (16 annas) (British India)	=	1 <i>s.</i> 4 <i>d.</i>	at par
1 Talari (20 piastres) (Egypt)	=	4 <i>s.</i> 1 ¹¹ / ₃₂ <i>d.</i>	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold, (2 fun or 100 sen) (Japan)	=	2 <i>s.</i> 0 ³⁷ / ₆₄ <i>d.</i>	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

ALGERIA.

MUTUAL AGRICULTURAL CREDIT IN 1915.

OFFICIAL SOURCE :

REPORT TO THE PRESIDENT OF THE REPUBLIC ON THE BUSINESS TRANSACTED IN ALGERIA IN 1915 WITH THE HELP OF PAYMENTS MADE BY THE BANK OF ALGERIA IN ACCORDANCE WITH THE LAWS OF 5 JULY 1900 AND 29 DECEMBER 1911 — *Journal officiel de la République Française*, Appendix, 7 April 1918

The number of the regional funds of mutual agricultural credit, which was forty-one on 31 December 1914, became only forty because one native fund in the department of Algiers was dissolved during 1915 and there was no new foundation. At the end of 1915 there were 17 funds in the department of Algiers, 13 in that of Constantine, and 10 in that of Oran.

Business diminished considerably everywhere. The number of bills discounted, which in 1913 was 18,264 for a total sum of 15,620,663 francs, fell in 1914 to 11,713 for 11,229,151 francs, and was in 1915 only 4,379 for 3,428,620 francs. About a third of the funds, to be precise 14 of them of which four are native funds, did no discounting business in 1915. This great retrogression is entirely due to the state of war.

If however discounting business has been restricted or even suppressed, most of the funds have none the less not been inactive. Almost all of them have taken pains to improve their position and made a point of diminishing the number of bills they have renewed. At the end of 1914

TABLE I. General Situation of the Regional Funds of Mutual Credit in Algeria.

Name of fund	Date of foundation	Capital		Amount of advances		Amount of funds received on deposit from individuals		Amount of reserves		Total
		Subscribed	Paid-up	Repaid	Difference	31 December 1914	31 December 1915	31 December 1915		
<i>Department of Algiers</i>										
Algiers	26 October 1901 . .	377,000	377,000	1,050,000	48,000	1,002,000	1,510,123.36	1,013,185.95	214,673.01	14,421.07
Afreville	30 January 1906 . .	49,500	19,975	78,000	—	78,600	481.90	21,078.04	—	1,783.50
Alu-Boutif (native) (t) . .	5 March 1907 . .	29,090	29,090	116,200	116,200	—	—	5,215.95	—	—
Asaza	31 May 1903 . .	15,825	5,275	17,000	200	16,800	—	415.65	455.05	844.45
Berrougaglia (native) . .	21 January 1907 . .	35,760	17,740	50,000	11,000	39,080	—	19,435.00	18,273.39	1,711.25
Boghari (native)	2 March 1907 . .	15,300	11,300	41,400	1,000	40,000	—	21,771.31	22,880.11	1,830.44
Boufarik	15 January 1903 . .	17,200	11,000	40,000	2,000	38,000	—	4,537.35	4,028.50	210.30
Chellala (native) (t) . .	28 February 1907 . .	52,620	22,140	51,060	51,060	—	—	—	—	—
Dellys (t)	14 June 1903 . .	7,700	1,025	7,100	3,000	4,100	—	—	—	—
Donera	11 May 1902 . .	41,400	20,350	36,300	1,000	35,300	—	—	15,327.90	697.25
El Afroua	24 March 1903 . .	66,600	16,450	64,700	700	64,000	—	—	5,171.47	785.15
Haut-Sebaou (native) . .	5 May 1913 . .	10,500	10,500	40,000	—	40,000	—	—	5,803.32	1,500.00
Kolka	30 March 1902 . .	27,200	18,350	80,000	30,000	50,000	—	—	900.75	—
Marégo	29 March 1903 . .	197,500	49,375	155,000	5,000	150,000	40,835.65	30,211.60	11,077.84	474.20
Madès (native)	22 April 1909 . .	21,500	16,400	50,000	2,000	48,000	—	15,213.84	15,251.49	2,344.65
Mirabeau	25 March 1904 . .	118,700	20,675	105,000	85,000	20,000	—	4,605.45	4,605.15	1,380.85
Monsieurville	11 March 1905 . .	54,800	13,700	99,000	6,000	80,000	—	30,247.70	30,604.70	460.00
Port-Guydon (native) . .	10 February 1903 . .	20,550	20,550	70,000	—	70,000	—	13,233.70	13,860.70	2,600.75
Ronbas (t)	17 April 1902 . .	200,000	20,350	200,000	200,000	—	447.00	673.00	5,633.03	1,500.00
Sersou (native)	16 July 1913 . .	16,600	4,150	16,500	—	16,500	—	—	—	—
Sidi-Aïssa (native)	20 September 1909 . .	79,100	19,775	36,000	3,000	33,000	—	10,454.96	13,286.65	1,459.65

Alsatia	22 June 1911 . . .	54,850	130,000	—	130,000.00	—	1,782.00	24,386.65	17,215.64	4,005.65
Alzema (native) . . .	28 August 1909 . .	106,000	85,000	10,000.00	70,000.00	—	—	21,724.40	21,724.40	944.00
Arny-Bou-Arredj . . .	12 December 1904 .	32,000	91,000	1,000.00	90,000.00	—	—	12,482.15	12,482.15	1,231.35
Bou-Arredj	28 December 1904 .	125,000	125,000	1,000.00	124,000.00	—	—	14,680.66	14,680.66	1,690.00
Bou-Arredj	28 December 1904 .	115,200	28,800	2,000.00	37,800.00	—	—	3,368.05	3,368.05	393.00
Bou-Arredj	28 December 1904 .	108,600	396,000	21,000.00	375,000.00	—	76,336.97	9,799.09	122,997.93	4,636.35
Bou-Arredj	3 January 1902 . . .	76,000	19,000	50,000.00	24,000.00	—	—	10,907.43	10,907.43	621.75
Bou-Arredj	14 May 1910 . . .	216,400	54,100	3,000.00	87,000.00	—	—	5,861.20	5,861.20	2,432.85
Bou-Arredj	5 March 1906 . . .	69,000	11,975	3,000.00	48,000.00	—	—	2,341.03	2,341.03	519.65
Bou-Arredj	28 January 1905 . .	162,400	40,000	12,500.00	127,000.00	—	—	4,600.00	4,600.00	1,403.50
Bou-Arredj	20 December 1903 .	63,800	190,000	11,000.00	179,000.00	—	—	37,742.43	37,742.43	4,983.80
Bou-Arredj	20 February 1904 .	500,000	460,000	26,000.00	434,000.00	—	—	26,632.66	26,632.66	3,389.25
Bou-Arredj	19 February 1908 . .	113,000	102,000	2,000.00	100,000.00	—	—	7,633.38	7,633.38	1,283.30
Total	1,999,850	62,2475	1,943,200	91,766.66	1,851,433.34	132,354.60	136,410.77	299,444.86	342,721.74	23,740.60
Department of Oren . .	3 October 1909 . . .	200,000	94,625	64,000.00	106,000.00	—	—	50,592.24	38,892.54	4,260.76
Arny-Bou-Arredj (native) .	23 July 1909 . . .	49,600	49,000	—	49,000.00	—	—	10,093.45	10,093.45	2,590.00
Arny-Bou-Arredj . . .	21 December 1902 .	43,625	155,600	27,600.00	128,000.00	—	—	22,817.65	20,613.95	5,559.65
Arny-Bou-Arredj . . .	11 October 1904 . .	172,225	430,000	50,000.00	400,000.00	—	—	32,780.25	30,449.74	20,000.00
Arny-Bou-Arredj . . .	7 November 1913 . .	7,500	5,000	—	5,000.00	—	—	39.20	137.50	410.50
Arny-Bou-Arredj . . .	7 June 1908 . . .	37,500	9,375	200.00	25,000.00	—	—	—	—	—
Arny-Bou-Arredj . . .	10 January 1903 . .	22,800	90,800	—	90,800.00	—	—	—	—	—
Arny-Bou-Arredj . . .	10 April 1903 . . .	47,900	11,975	9,800.00	32,000.00	—	—	—	—	—
Arny-Bou-Arredj . . .	15 April 1903 . . .	25,500	30,800	30,800.00	30,800.00	—	—	—	—	—
Arny-Bou-Arredj . . .	10 March 1904 . . .	359,900	82,475	5,000.00	296,000.00	—	—	72,729.90	100,414.15	5,130.10
Arny-Bou-Arredj . . .	30 March 1903 . . .	43,800	145,000	5,000.00	135,000.00	—	—	38,001.65	38,001.65	30.50
Arny-Bou-Arredj . . .	21 December 1904 . .	167,270	485,000	25,000.00	460,000.00	—	—	58,975.30	62,125.00	5,037.80
Total	1,137,620	715,045	1,936,400	220,400.00	1,716,000.00	1,818,334.99	1,209,568.70	287,031.64	290,671.33	23,128.31
RECAPITULATION . . .										
Arny-Bou-Arredj . . .	1,454,005	759,080	2,394,860	565,160.00	1,829,700.00	1,531,888.11	1,095,512.59	380,311.07	372,641.15	34,020.32
Arny-Bou-Arredj . . .	1,599,850	622,475	1,943,200	91,766.66	1,851,433.34	1,324,334.99	1,364,102.77	299,444.86	342,721.74	23,740.60

(1) Dissolved in 1912. -- (2) Dissolved in 1915. -- (3) No longer active. -- (4) Dissolved in 1911. -- (5) In liquidation. -- (6) Dissolved in 1912.

TABLE I (continued). — General situation of the Regional Funds of Mutual Credit in Algeria.

Name of regional fund	Date of creation	Number of bills discounted		Amount of discounted bills		Number of bills, on 31 Dec. 1914		Amount, on 31 Decemb. 1914		Rate of discount or interest on bills	Rate of interest for advances to co-operative institutions	Number of local funds to which funds	Number of members of local funds
		in 1914	in 1915	in 1914	in 1915	in 1914	in 1915	on 31 Decemb. 1914	on 31 Decemb. 1915				
		P. 1000											
Department of Algiers.													
Algiers	20 October 1907	1,457	810	1,716,177.70	1,082,604.40	1,584	0.48	2,156,226.45	1,827,038.55	5	2	49	1,917
Afreville	30 January 1908	51	1	20,530.65	2,000.00	177	88	225,992.40	84,753.80	7	2	9	213
Ain-Boudjel (native) (1)	4 March 1907	—	—	—	—	—	—	—	—	—	—	—	—
Azaoua	31 May 1903	144	22	152,580.00	7,203.00	137	90	229,195.00	80,645.00	6	2	1	67
Berroumia (native)	21 January 1907	404	—	81,870.00	—	133	38.2	19,640.00	86,920.00	7	2	8	457
Boghari (native)	2 March 1907	—	—	—	—	87	—	4,940.00	—	8	2	7	195
Boufarik	15 January 1903	5	4	6,150.00	5,700.00	51	49	88,150.00	87,400.00	4	2	1	20
Chellala (native) (2)	28 February 1907	—	—	—	—	—	—	—	—	—	—	—	—
Dellys (3)	14 June 1903	—	—	—	—	—	—	—	—	—	—	—	—
Douéra	11 May 1902	75	30	37,525.00	16,850.00	53	37	37,075.00	25,800.00	6	2	3	247
El Affroun	24 March 1905	98	35	149,667.00	159,946.30	52	34	81,042.00	79,119.30	5	2	3	101
Upper Sbaou (native)	5 March 1913	222	—	81,850.00	—	105	—	21,600.00	—	7	2	4	131
Koles	20 March 1902	8	4	5,600.00	1,800.00	10	7	11,400.00	10,100.00	5	2	1	54
Marengo	29 March 1905	1,205	—	13,745,531.00	—	187	—	59,445.25	—	6.50	2	6	213
Mérida (native)	22 April 1909	287	282	120,600.00	115,725.00	282	278	116,910.00	115,725.00	8	2	5	395
Mirabeau	15 March 1905	8	—	6,950.00	—	1,024	1,145	692,076.20	771,000.80	6	2	1	82
Montrabauville	11 March 1905	97	22	59,566.65	4,399.60	364	143	269,714.30	255,632.00	6	2	1	84
Port-Guydon (native)	10 February 1913	8	5	1,375.00	1,350.00	211	189	79,900.00	80,875.00	6	2	6	227
Rouiba (4)	17 April 1903	—	—	—	—	—	—	—	—	—	—	—	—
Serson (native)	16 July 1903	—	—	—	—	—	—	—	—	—	2	5	258
Sidi-Aïssa (native)	20 September 1909	6	—	450.00	—	392	245	76,160.00	31,590.00	8	2	3	473

Batna	22 June 1911.	92	251	57,900.00	48,295.50	1,481	1,420	720,534.75	656,049.00	5 to 8	2	5	921
Béxéme (native)	18 August 1909.	746	—	142,235.00	—	500	591	107,235.00	110,404.80	6.50	2	1	820
Bordj-Bou-Arroudj	10 June 1904	26	26	41,400.00	41,400.00	88	88	—	111,639.00	6	2	1	155
Boua	1 December 1904	545	—	659,575.00	—	—	—	—	—	5.50 to 7	2	6	245
Bouge	2 June 1908.	1	—	1,500.00	—	2,243	—	—	416,610.00	6.50	2	2	322
Constantine	28 December 1903	1,023	—	922,354.00	—	—	2,090	477,331.25	—	6.50	2	19	732
Djidjelli	3 January 1902	268	208	17,976.65	81,333.10	190	203	89,231.45	76,687.40	6.50	2	3	352
Edough-La Calle	14 May 1910.	144	8	236,660.00	33,000.00	119	39	211,525.00	110,935.00	6.25	2	4	350
Guelma	25 March 1906.	226	96	144,650.00	20,025.00	105	52	30,820.00	49,900.00	6.50	2	0	574
Jemmapes	28 January 1905.	172	40	94,275.00	16,910.00	364	384	359,145.95	354,531.60	6	2	6	139
Philippeville	20 December 1903	362	420	570,380.00	77,221.85	336	—	46,600.00	—	5.50	2	4	289
Saïf	20 February 1904	583	211	1,024,689.61	210,500.00	329	165	870,615.85	184,425.00	4.50 to 5.50	2	1	340
Gouttaïras	19 February 1908	277	202	71,100.00	96,775.00	159	59	91,650.00	25,600.00	3	2	5	413
Total		4,465	1,522	4,100,715.30	634,461.15	6,013	5,091	3,116,348.25	2,076,771.80			66	5,821
<i>Department of Oran.</i>													
Annul-Moussa	3 October 1909	118	11	26,171.95	4,482.00	6,380	5,610	811,610.30	651,561.80	8	2	4	1,511
Djebel-Nader (native)	13 July 1909.	52	—	39,850.00	—	142	—	40,300.00	—	6	2	3	496
Moslaganem	21 December 1902	224	21	116,908.50	10,806.00	177	65	139,098.00	19,212.00	5	2	11	324
Oran	11 October 1902	216	—	174,908.75	—	1,077	942	1,238,184.20	849,871.45	7	2	20	510
Quailzaue	7 November 1913	9	31	3,550.00	9,885.00	1,077	—	—	100.00	4	2	1	26
Perrièreux	7 June 1908	10	—	3,150.00	—	160	—	102,200.00	—	7	2	3	104
Primeurises-d'Oran (5)	16 January 1903	—	—	—	—	—	—	—	—	—	—	—	—
Relizane	16 April 1903	55	—	44,873.95	—	—	—	—	—	2	—	2	125
Rio Salado (6)	15 April 1903	511	948	416,917.15	178,656.10	1,023	683	1,141,216.00	429,350.00	6 & 6.50	2	28	1,345
Sidi-Bel-Abbes	10 March 1904	51	18	37,700.00	22,450.00	7	6	13,500.00	12,000.00	5.50	2	6	132
Tiaret	30 March 1903	1,029	1,213	2,451,104.25	1,176,186.10	1,023	1,011	1,191,735.25	696,872.25	6 & 6.50	2	14	803
Tlemcen	21 December 1901	—	—	—	—	—	—	—	—	—	—	—	—
Total		3,175	1,642	3,295,433.65	1,402,489.20	10,003	8,318	4,650,803.75	2,659,367.50			92	5,376
<i>RECAPITULATION</i>													
Algiers		4,073	1,115	2,833,003.00	1,391,670.30	4,849	3,654	4,102,824.60	2,324,600.45	—	—	113	5,184
Constantine		4,465	1,522	4,100,715.30	634,461.15	6,013	5,091	3,116,348.25	2,076,771.80	—	—	66	5,821
Oran		3,175	1,642	3,295,433.65	1,402,489.20	10,003	8,318	4,650,803.75	2,659,367.60	—	—	92	5,376
General Total		11,713	4,379	11,229,151.95	3,428,620.65	20,865	17,063	11,869,976.60	8,270,748.76			271	16,321

(1) Dissolved in 1912. — (2) Dissolved in 1915. — (3) No longer active. — (4) Dissolved in 1911. — (5) In liquidation. — (6) Dissolved in 1912.

TABLE II. - *Long-term Advances to Co-operative Societies.*

Name of co-operative society	Department	Date of foundation	Kind of co-operative society	Capital subscribed francs	Capital paid-up francs	Number of members
Blaudan	Constantine	30 January 1914	Cellars	20,200	7,530	171
Castiglione	Algiers	1 September 1910	Idem.	75,900	56,525	106
Damiette	Idem.	7 August 1912	Idem.	125,700	31,425	32
Dupleix	Idem.	11 August 1910	Idem.	36,000	19,500	29
Engineers' Well.	Idem.	13 July 1908	Idem.	57,000	28,500	19
Gouraya	Idem.	4 June 1907	Idem.	39,600	19,425	26
Maholma	Idem.	16 January 1910	Idem.	96,000	24,000	27
Marceau	Idem.	17 February 1914	Idem.	77,000	19,350	16
Marengo	Idem.	5 May 1911	Idem.	194,700	48,675	46
Montenotte	Idem.	24 October 1912	Idem.	100,000	25,000	26
Morris	Constantin	28 January 1914	Idem.	60,000	15,000	19
Novi	Algiers	1 October 1908	Idem.	250,000	62,500	56
Orleansville	Idem.	18 May 1908	Cotton.	60,000	16,450	57
Fruit growers and forcers in Algeria.	Idem.	23 May 1915	Fruit growers and forcers	8,000	2,425	57
Tarf	Constantine	18 January 1914	Threshing	28,000	7,000	7
Zurich	Algiers	26 June 1908	Cellars	250,000	62,500	29
Total . . . . .	. . . . .	. . . . .	. . . . .	1,472,100	445,525	569

TABLE II (continued).—Long-term Advances to Co-operative Societies.

Name of Co-operative society	Department	Advances made						Rate of interest	Repayment by an- nual instalment		Intermediary regional funds
		in 1910	in 1911	in 1912	in 1913	in 1914	in 1915		Total	Term	
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such bills reached for all the Algerian funds the total sum of 11,869,976 francs ; on 31 December 1915 only 8,270,748 francs. This improvement was not however quite general, and even in the case of four funds — one European and three native — the number of renewed bills was larger in 1915 than in 1914 although three of them discounted no bills in 1915.

The slackening of business was necessarily inimical to the constitution of reserves. Four funds in the department of Constantine, three in that of Algiers and three in that of Oran suffered a diminution of their reserves. Moreover in the last-named department one fund has no longer any reserve and two others never have had one, although many and pressing recommendations on this subject have been addressed to them. However, in spite of the falls we have noticed, the total reserves increased in 1915 by 39 050 francs, an increase which certainly is not important but is as much as can be expected in present circumstances.

The deposits made by individuals gave in 1915 different results in different departments. In that of Algiers they increased by 413,263 francs and in that of Constantine by the insignificant sum of 4,056 francs, while in that of Oran they diminished by 608,966 francs. In this last department they were, indeed, larger than anywhere else until 1914 and still amounted to 1,209,338 francs in 1915. On 31 December the total deposits of individuals reached 3,311,138 francs.

Total advances from the funds emanating from the Bank of Algeria and still owed by the regional funds of credit reached the sum of 5,397,133.34 francs. A sum of only 4,000 francs was repaid in 1915. In the present state of the agricultural and economic situation it was not thought wise to make any exaction from the funds. Their position gives rise to no uneasiness.

Two new co-operative societies were formed in 1915, one in the department of Algiers and one in that of Constantine. The department of Oran remains quite outside the co-operative movement.

The advances made to co-operative societies amounted on 31 December 1915 to 880,300 francs, of which 179,300 francs had as yet no mandate.

The payment of annual instalments is made without difficulty at the agreed dates. One society paid nothing in 1914 and 1915 but in the current year made the deferred payments, so that all the co-operative societies which have received advances are now in an absolutely regular position as regards the colony. The contrary would be surprising for these societies seem entirely prosperous. Most of them have already redeemed the costs of their first establishment and all possess important reserves.

In accordance with article 2 of the law of 3 December 1913 three decrees, all dated 25 March 1915, have become applicable to Algeria within limits imposed by differences in the administrative and financial organization of the colony, its economic situation and the personal status of its populations :

1. The law of 19 March 1910 instituting individual long-term credit ;
2. The decree of 23 August 1912 which applied article 6 of this law ;
3. The decree of 17 October 1912 applying article 12.

Agriculturists will henceforth be able to obtain from funds of agricultural credit advances of which the amount has been limited to 8,000 francs and which are repayable within a maximum period of fifteen years and intended for the acquisition, adaptation, transformation and reconstruction of small rural holdings.

A decree of 15 September 1915 also applied in Algeria the decree of 26 March 1910. It regulated by public authority the application of the law of 19 July 1909 as to the constitution of family property exempt from seizure, the provisions of which law had been extended to the colony by the decree of 31 January 1915.

Finally the decree of 2 December 1915 unified the resolution of 24 June 1915 of the full meeting of financial delegations as to the declaration of the constitution of a family property exempt from seizure.

Thus the various legislative measures which regulate mutual agricultural credit in the mother-country have, with necessary modifications, been applied in Algeria.

The new measures which we have mentioned necessitate the modification of the by-laws of the credit funds. It is however certain that it is only after the cessation of hostilities that the new legislation will produce the results which may be fairly expected of it.

UNITED STATES.

A STATISTICAL ENQUIRY INTO CO-OPERATIVE ORGANIZATIONS.

§ 6. 'THE CO-OPERATIVE SOCIETIES' SOURCES OF CREDIT.

By means of a special enquiry it has been possible to obtain information as to the source from which the farmers' co-operative marketing associations derive their capital and are able to finance their operations. About 650 of them have reported on this point.

Table IV. shows for each kind of association the amount of paid-up capital and membership fees, the value of buildings and equipment and the excess of assets over liabilities. Many data were obtained by the personal visits of enquiry agents to the organizations and by interviews with bankers and other competent persons during the years 1914 and 1915.

The following table resumes an enquiry into the amount of capital held by 401 farmers' co-operative associations and the source from which it is derived.

We will now examine in detail the sources of the capital of the chief kinds of associations which figure in Table IV.

A) *Elevators.*

The capital of farmers' grain elevators is generally only enough to provide the means of doing business and leaves very little excess as working capital. A considerable capital is required during the season in which there is a rush of marketing, for an elevator usually pays cash for grain as the farmer delivers it. Several days elapse before returns are received for this grain and it often accumulates in the elevator. An elevator's small working capital does not go far towards paying for all the grain delivered. Financial help must be secured from such outside sources as banks, commission firms and individuals.

On the basis of the average sum required from outside sources in order to market members' grain, as this average is shown by the reports from 262 elevators (Table V), it may be estimated that in 1914 the total sum borrowed was about \$30,000,000, most of it being borrowed for short periods. The sum, large in itself, is small as compared with the total value of the products marketed.

Security for Loans.—Of the 291 organizations which reported 99 gave their company's notes as securities for the loans they obtained, 82 gave only agreements to consign certain amounts of grain to the commission houses making the loans, 8 gave mortgages on the elevator and equipments, 5

TABLE IV. — *Amount of paid-up capital and the excess of assets over liabilities of 653 co-operative farmers' marketing associations.*

Kind of association	Paid-up capital and membership fees		Value of buildings and equipment		Excess of assets over liabilities (1)	
	Number reporting	Paid-up capital and membership fees	Number reporting	Amount	Number reporting	Amount
Elevators	328	2,553,463	326	2,857,555	328	4,361,875
Average		7,785		8,765		13,380
Creameries and cheese factories	172	716,996	174	1,199,424	173	1,093,339
Average		5,331		6,893		6,320
Fruit and vegetable produce	84	1,672,311	76	993,215	91	2,411,318
Average		19,908		13,069		26,499
Cotton warehouses and gins	26	179,778	27	204,772	26	321,146
Average		6,915		7,584		12,351
Miscellaneous associations	43	456,057	35	205,792	42	740,675
Average		10,606		5,885		17,635
Total	653	28,578,605	638	5,460,758	660	8,928,453
Average		43,765		8,559		13,528

(1) Paid up capital stock and membership fees are not included as liability.

gave their company's notes endorsed by individuals, 12 warehouse receipts for stored grain, and 85 the personal security of responsible individuals, usually officials of the company or well-to-do members

These data show that at least one third of the elevators reporting have no credit acceptable to bankers except that given to responsible individuals who assume a personal responsibility. No co-operative business organization should be so conducted that it is necessary for a few members to assume large personal risks in order that the business, which benefits all the members, may be carried on. Each member should assume a liability proportionate to the benefits he receives or the amount of business he does through the organization.

Interest. — As to the rate of interest they pay, 298 elevators report as follows :

Number reporting . . .	6	71	1	110	61	14	5	10	8	2	4	5	1
Rate per cent	5	6	6 ½	7	8	10	8-10	6-7	7-8	6-8	5-6	5-7	5 ½-7

TABLE V. *Source of the capital of 401 co-operative associations.*

Kind of association	Banks		Commercial firms		Individuals		Banks and commercial firms		Banks and individuals		Commercial firms and individuals		Total number reporting	Total number reporting borrowed capital	* Total amount borrowed
	Number reporting	Amount \$	Number reporting	Amount \$	Number reporting	Amount \$	Number reporting	Amount \$	Number reporting	Amount \$	Number reporting	Amount \$			
Elevators . . .	154	1,040,950	47	722,813	10	36,500	17	218,200	33	296,500	1	20,000	298	202	2,334,963
Average . . .	—	6,759	—	15,379	—	3,650	—	12,835	—	8,945	—	20,000	—	—	8,912
Creameries . . .	26	56,650	—	—	2	4,000	—	—	1	6,000	—	—	33	29	66,650
Average . . .	—	2,177	—	—	—	2,000	—	—	—	6,000	—	—	—	—	2,298
Fruits and vegetable produce.	63	1,115,275	—	—	1	1,500	—	—	8	2,116,155	—	—	75	72	3,232,925
Average . . .	—	17,703	—	—	—	1,500	—	—	—	264,519	—	—	—	—	44,902
Cotton warehouses and gins.	10	64,750	1	500	—	—	—	—	1	1,750	—	—	14	12	68,000
Average . . .	—	6,375	—	500	—	—	—	—	—	1,750	—	—	—	—	5,666
Tobacco . . .	2	85,000	—	—	—	—	—	—	1	50,000	—	—	3	3	135,000
Average . . .	—	42,500	—	—	—	—	—	—	—	50,000	—	—	—	—	45,000
Miscellaneous . .	13	39,900	—	—	5	125,700	—	—	5	33,347	—	—	28	23	198,947
Average . . .	—	3,069	—	—	—	25,140	—	—	—	6,069	—	—	—	—	8,650
Total . . .	268	2,403,325	48	723,313	18	167,700	17	218,200	49	2,503,752	1	20,000	451	401	6,036,485
Average . . .	—	8,968	—	15,069	—	9,317	—	12,835	—	51,997	—	20,000	—	—	15,954

The figures show that more than one third of the elevators report that they pay 7 per cent. for funds with which to carry on their business. Seventy-one pay 6 per cent., and 14 pay 10 per cent., the latter high rate being in most cases due to a lack of such approved collateral security as is generally accepted by bankers. Several elevators have arranged with the banks for overdrafts for which they pay from $\frac{3}{4}$ per cent. to 1 per cent. per month, that is at the rate of from 9 to 12 per cent. a year. The reports show clearly that rates vary within the same territory, Minnesota elevators, for example, paying rates which range from 6 to 10 per cent. Of two companies within ten miles of each other which borrow from local banks one pays 7 per cent. and the other 10 per cent.

An elevator obtaining funds from a commission firm is generally charged 6 per cent., in some cases as much as 8 per cent. An investigation conducted by the Office of Markets and Rural Organization together with the University of Minnesota found that of 158 elevators which borrowed funds in Minnesota, 51 per cent. were financed wholly or partly by commission men who charged interest at the average rate of 6.74 per cent.; 71.5 per cent were financed partially by local banks and paid on an average 7.39 per cent; and 13 per cent. also borrowed from individuals, usually farmers, and paid interest at the average rate of 6.25 per cent.

Duration of Loans. — Most of the loans made to elevators by banks and individuals are for short periods of time, one to four months or the heavy marketing season. Forty-one elevators report that they secured loans payable on demand. When commission firms advance funds the business is handled on open account and a final settlement made after the business year has closed. Thirty-five elevators secured loans for 12 months for improvements.

Some 14 elevators have an arrangement with their banks by which sums not exceeding a certain amount are advanced to them in order that they may take care of their business, interest being charged only on the funds as they are advanced. In this way interest is not paid on a large balance.

Advances to Members on Warehouse Receipts. — Of 326 elevators which reported, 62 made advances to members on warehouse receipts which ranged from small amounts to as much as 75 per cent. of the grain. Two hundred and sixty-four reported no advances.

As a rule it is considered inadvisable for an elevator to make advances to members on stored grain, for it is thus brought into a department of banking which is better left to local banks. A farmer sometimes objects to paying interest on a loan from an elevator, because he considers that as it holds his grain the money advanced is a part payment on his property. All loans by elevators to suppliers of grain should be made on open account or secured by a personal note. The prevailing rate of interest should be charged.

The storing of grain is variously regarded and practised to a varying extent in the different States. In the south-western and eastern parts of the grain belt many elevators forbid storing and the practice is generally discouraged. In the north-western grain States storing and hedging are

practised in about 95 per cent. of the elevators. The managers of elevators have in some instances taken advantage of the presence in the elevators of stored grain to speculate, and inefficient book-keeping has brought direct loss to their employers. Such losses are partly responsible for the disfavour with which the storing of grain is in some districts regarded.

An elevator financed by a commission firm is sometimes handicapped because it cannot take advantage of the better prices which may from time to time be offered by markets other than such firm. Elevators which are not thus dependent can consign grain first to one market and then to another, and thus promote competition among the commission men and secure the best prices possible. Commission firms have however served a useful purpose in financing the farmers' elevators for they have sometimes given financial help which could not have been secured elsewhere. However elevators are every year turning more and more to local sources for their funds, and this is their best course.

B) Creameries and Cheese Factories.

As a rule a farmers' creamery and cheese factory has little difficulty in financing its manufacturing and marketing, for it withholds payment to the producer until returns have been received from the products marketed. Manufacturing costs are small and can be met from the returns for sales. Where funds from outside sources are needed the plant and equipment are usually amply sufficient to cover any loans secured and to serve as a basis for credit.

As fast as milk or cream is received it is made into butter or cheese, of which a large part is immediately consigned to markets, very little being stored. Payment to members is made for periods varying from two weeks to a month, on the basis of the average price which the manufactured product brings, less the manufacturing, selling and miscellaneous costs. For example, when two payments a month are made the farmer will receive a check on the 1st of each month for his deliveries from the 1st to the 15th of the previous month, and on the 15th for his deliveries from the 15th to the 30th thereof. This system is followed in most of the country creameries and cheese factories in the United States, and the farmers do not seem to object to the necessity which it imposes on them of waiting from 15 to 30 days for their "cream checks". The system has met with such success among co-operative organizations that some privately owned dairies have adopted it. In some districts however co-operative creameries have been compelled to pay cash in order to compete successfully with privately owned factories which do so; and a co-operative organization in such case has been obliged either to secure funds from outside sources, or to form a surplus with which to cover the value of the milk and cream for which suppliers have been paid but which has not yet been sold as butter or cheese.

The amounts borrowed as shown in Table V were needed to meet the general running expenses of the business, to buy supplies, in some instances to pay for new machinery and repairs, in others to make advances to members.

Of 35 creameries which reported as to the security given for loans, 14 gave their company's notes, 14 others notes personally endorsed by the directors, 2 were able to obtain funds without giving any collateral security, 3 gave mortgages on their plant and equipment, and 2, which had cheese in storage, gave warehouse receipts. These figures do not take into account sums borrowed for the building of the factory and initial equipment. Where loans for this purpose were secured members at the outset paid enough in membership fees and as capital stock to furnish a basis for the required credit which was usually obtained from banks. In some instances machinery companies gave credit for the equipment.

Interest. — Thirty-two companies report as follows as to the rate of interest on loans :

Number reporting.	13	8	8	1	2
Rate per cent	6	7	7-8	8	10

The rates vary with districts and depend upon the season, the term of the loan, and the credit which the organization enjoys.

Duration of Loans. — Seven organizations used borrowed money during three months ; six during from two to three months in order to make advances to members in the summer when deliveries of milk are heavy. Seventeen reported that they used borrowed funds for from three to ten months ; three that they worked throughout the year on borrowed capital.

Weaknesses of the Organizations. — A great difficulty of the average co-operative creamery is due to the fact that it makes no provision for replacing plant and machinery. Such repairs, replacements and improvements as are made are charged, until they are paid for, against the deliveries of members to the extent which the business will allow. Organizations should form a reserve to guard against the depreciation of plant and equipment, so that replacements can be made without special assessments.

There is great need for improvement in the accounting and the general business management of these organizations. Their present unsatisfactory condition is recognized by the bankers and they have consequent difficulties in obtaining credit.

C) *Fruit and Vegetable Produce Associations.*

Organizations marketing fruit and vegetable produce generally require considerable sums of money in order to meet the expenses of early marketing and make advances to growers, for some weeks usually elapse between the delivery of members' produce and the receipt of returns from the market. It is necessary for the growers to have funds with which to meet the expenses of picking and packing. Since independent buyers are willing to pay for the fruit on delivery, the co-operative organizations make as liberal advances as possible to members at the outset. Various plans have been devised by which an association can secure funds from outside sources, for in many cases it is impracticable to accumulate a surplus which would cover the early

advances, and as the money is required only for a short time it would, if accumulated, be idle for a large part of the year.

Hitherto bankers have been unwilling to lend on the security of perishable produce, but they now consider such produce marketed through an efficient organization to be good security and make loans accordingly to co-operative marketing organizations.

The amount of money needed to handle perishable produce varies with the size of the business and the methods of conducting it. Some organizations which conduct only a consignment business and do not make advances to growers need only a small amount with which to meet general running expenses. This is in many cases provided by the issue of capital stock, by membership fees, or by the accumulation of a surplus of which a sufficient part can easily be turned into cash. Many organizations have developed a large f. o. b. business, making drafts against consignments and arrangements with the banks to honour these, and placing them to the credit of the association. This provides funds for immediate uses and decreases the necessity for seeking funds from outside sources. Where pools are made advances to members are often necessary, for a pool may not be entirely closed for months after the first receipts come in. If it is possible to secure funds to make the early advances, returns for consignments will, as they are received, cover other advances to the growers. Some of the successful vegetable produce associations in the Atlantic States buy the members' produce outright and pay for it at the time of delivery. This plan needs large sums of money.

Security for Loans. — Of the 75 organizations which reported as to the amounts they borrowed, 38 gave their associations' notes as security. Twenty-six gave such notes endorsed by the directors or individual members who assumed the liability. Three gave no security, receiving the funds they needed from bankers on overdrafts. Two gave mortgages on their packing plant. One had obtained about \$300,000 from bankers on warehouse receipts for stored nuts; and one had similarly secured a large sum on receipts for stored apples.

These figures show that more than half the organizations can borrow the sums they need to meet the expenses of the early marketing season and make advances to members, without security other than that which they can themselves give. A surprisingly large number, 26 out of 72, are however so organized that the personal security of directors or members is needed for the financing of their operations.

Rate of Interest. — Seventy-six organizations report as follows as to the rate of interest on loans:

Number reporting . .	28	10	3	7	20	1	5	3
Rate of interest . . .	6	7	6-7	7-8	8	8-10	10	12

The rates of interest thus vary from 6 to 12 per cent. The two organizations paying 12 per cent. are much in need of reorganization and have had considerable difficulty in obtaining funds. The associations on the Atlantic coast usually secure funds at the rate of 6 per cent. Some of the larger

organizations on the Pacific coast can, because they borrow large amounts and have an excellent business, secure loans by paying from 6 to 7 per cent. although the banks ask a considerably higher rate of individual producers. One of the large distributing agencies in the Pacific North-West borrowed nearly \$400,000 in one season and advanced most of this sum to members delivering fruit. The five organizations which paid 10 per cent. borrowed small amounts at the time of year at which money is at a premium in farming communities, and have moreover an insufficient amount of capital.

Duration of Loans. — Of 74 associations which reported as to the periods for which they borrow funds, 21 borrow only for three months or the early part of the marketing season; 7 for 6 months; and the others for from 1 to 12 months, usually for from 1 to 4.

It is possible only in years in which marketing conditions are good to advance a high percentage of the total amount due to a grower. When markets are bad great caution is necessary for it is possible to overpay. The stored fruit may not produce the returns anticipated in the early season. In 1913 the large distributor in the Pacific North West was able to secure advances on apples. Some banks offered to lend at 6 per cent. as much as \$1 on every box of stored apples. But in 1914, when the crop was large

TABLE VI. — *Annual sales of the larger co-operative fruit and vegetable produce associations.*

Name of association	Produce sold	Year	Sales \$
California Fruit Growers' Exchange	Citrus fruits.	Year ending 31 August 1915.	19,737,850
California Fruit Growers' Exchange Supply Co.	Members' supplies.	31 August 1915	3,319,062
Eastern Shore of Virginia Produce Exchange	Vegetables, principally potatoes.	1914	5,752,690
Monmouth County Farmers' Exchange	do.	1914	1,323,443
North Pacific Fruit Distributors	Perishable fruits.	1913	3,372,196
Georgia Fruit Exchange . .	Peaches.	1913	2,250,000
Florida Citrus Exchange . .	Citrus fruits.	1913	3,500,000
Puyallup and Sumner Fruit Growers' Association	Fresh fruits; operates two canneries.	1914	1,300,000
American Cranberry Exchange	Cranberries.	1913	1,500,000

and markets were more or less disorganized, it was almost impossible to secure advances from banks or cold storage companies. One large packing firm offered to lend at 8 per cent. 12 ½ cents per box of apples. Conditions improved later in the season and distributors could negotiate a heavy loan on the basis of 35 cents a box, but this was only on the best qualities stored. Nevertheless in the Pacific North West the stronger growers' organizations were advancing as much as 40 cents per box to growers on all varieties, grades and sizes, which proved, since marketing conditions were unusually bad, that their own situation was excellent.

Table VI shows the business done by certain of the larger co-operative associations marketing fruit and vegetable produce in the United States.

§ 7. OFFICIAL AGENCIES ASSISTING CO-OPERATION.

Several organizations take an active interest in co-operative organization, help to form new associations and render aid to those already formed. Among them are the United States Department of Agriculture, the State agricultural colleges and experiment stations, State departments of agriculture, State marketing bureaus, and various other organizations, companies and individuals.

A) *The United States Department of Agriculture.* — *The Office of Markets and Rural Organization* has been devoting considerable attention to co-operative purchasing and marketing, and has rendered assistance where organizations for these purposes have already been formed or are contemplated. Many personal visits have been paid to give help of this kind, local conditions have been studied, and recommendations have then been made as to the desirability of organization, as to methods, and the like. In other instances similar help has been given by means of correspondence. General information is available as to the advisability of organization, and as to the form and method of organization proper to various conditions. Suggested by-laws have been supplied to a large number of organizations.

The accounting systems of existing co-operative associations have been studied, and uniform systems of accounting have been perfected for elevators, fruit and vegetable produce associations, associations consigning live stock, creameries, stores and other types of organization. Assistance in introducing these systems has been given in many cases. Educational work is done with a view to improving systems of accounting and making the general methods of co-operative enterprises more businesslike. The financing of these associations has been studied and methods have been evolved for them.

This office has made not only a general survey of co-operative marketing in the United States but also more detailed surveys of certain classes of organizations. Several bulletins dealing with co-operation and co-operative marketing have been issued and have served to give information on the subject to many people.

The *Dairy Division* is interested principally in the production and manufacture of dairy products, and therefore keeps in touch with a large number of farmers' creameries and cheese factories. It helps them chiefly in their manufacture but also in the organization and management of their creameries.

The *States Relations Service* helps farmers' organizations and farmers desiring to organize indirectly, through the county agents in the different States. In many States the organization work of the agricultural colleges and experiment stations is carried on largely through the county agents.

B) *Other Official Agencies.* — Among the organizations which further co-operation among farmers should be mentioned the State agricultural colleges, the departments of agriculture and departments of markets. Some of these institutions have taken an active part in organizing and assisting farmers' co-operative organizations; others have furthered co-operation by educational work; but a few have hitherto done nothing for it. The work of these institutions for co-operation is now being enlarged. A number of agricultural colleges and State departments have recently turned their attention to marketing, in collaboration with the Office of Markets and Rural Organization, and in some cases they are specializing in the problems of co-operative organization.

§ 8. LAWS ON CO-OPERATION.

A) *General Survey.*

In the main the laws regulating the formation of co-operative associations in the various States are of two types. Some are very general and others outline in detail the methods of forming an organization and managing its business. The general laws leave the details to be worked out by each individual organization, and supporters of this type of law argue that in allowing latitude to organizations they enable these to take the form which best suits the needs of a community. There is no doubt however that a detailed law secures the greatest uniformity of organization. If, moreover, detailed laws on co-operation had existed in all States when the movement for the organization of farmers began, the proportion of truly co-operative organizations now in existence would unquestionably be larger than it is.

The laws usually state the minimum number of persons who may organize and the kind of business in which they may engage. The method of incorporation is outlined sometimes but not always: in some States the associations are referred to the general corporation laws on this point. The laws often include restrictions as to the board of directors and the officers. General laws usually leave questions concerning the capital stock to the decision of each association, while detailed laws usually regulate the minimum and maximum amounts of capital stock, share values, the limit on the individual ownership of shares, the issue of shares and the transfer of stock. Most of the laws recognize the importance of regulating the voting power,

the majority of them stating that each member is to have one vote irrespectively of the amount of stock he holds. Regulations as to voting by proxy and by post are sometimes included.

The method of distributing any profits there may be does or should figure importantly in laws on co-operation. While some States leave this matter to be decided by each association others provide for it in detail. In the latter case dividends on stock are usually limited to a fair rate of interest ; there is provision for a reserve fund and sometimes also for an educational fund ; and for the distribution of remaining profits as a dividend to suppliers. Some laws specify that such dividends to suppliers are to be paid only to members ; others allow each association to decide whether or not suppliers who are not members shall receive dividends. Several States provide that suppliers' dividends shall be paid at a lower rate to non-members than to members. In a few instance there is a detailed provision for the apportionment of profits, which associations may however revise. Since the desirability of a truly co-operative method of distributing the profits of an association is often not recognized, it is advisable that it should be made obligatory by the laws on co-operation. Non-co-operative organizations could thus be prevented from masquerading as co-operative.

The points to be covered by the by-laws of co-operative organizations are sometimes indicated in the laws on co-operation. Provision is sometimes made for the investment of the reserve fund and the purchase of the business of other associations. Frequently there are provisions which allow existing organizations to reorganize, complying with the requirements of the law. Regulations are also often included in the law for the dissolution of an organization, for making annual reports compulsory, and for limiting the use of the word " co-operative ".

B) The Chief Points Covered by the Laws.

We will give later a summary of the State laws relating to co-operative organization, or rather of the laws of this kind which are in force in 30 States. These include 33 laws ; for Colorado, Michigan and Washington have two separate Acts each, one providing for non-stock organizations and one for organizations with capital stock.

Scope and Purpose. — Most of the laws provide in detail as to the kinds of business in which the organizations may engage, but a few make no such restrictions, leaving them free to engage in any lawful business. Where scope and purpose are fully outlined the field covered is usually sufficiently large to make organization for any lawful purpose possible.

Minimum Number of Members. — All but three of the laws state the minimum number of members who may organize. Two which do not mention this point provide for it indirectly by specifying the number of directors and officers which an association must have. Four stipulate that at least 3 persons are needed to organize ; 5 is the minimum required by 18 laws ; 7 that required by 4 ; 10 and 20 are each required by one ; and 15 by 2.

Filing of Articles of Incorporation. — Methods of filing articles of incorporation vary considerably in the different States. Twenty-two laws provide for filing the articles with the Secretary of State, in addition, in 14 cases, to some other official. Four laws make no stipulations as to methods of filing ; three state that the organizations shall be governed in this matter by the regulations applying to corporations in general.

Management. — Twenty-two laws have clauses which regard the management of the associations. Thirteen provide for a board of directors of at least 5 members, and 11 of these specify which officers the associations shall have ; 4, of which 2 also provide for the officers, stipulate that there shall be a board of at least three directors ; one states that it shall have at least 5 and not more than 9 members ; one that it shall consist of the president, secretary and three directors. Three leave the question of management to the by-laws of the associations.

Capital Stock. — Seven of the laws provide for the organization of associations without capital stock. Eleven make some provision as to the value of shares or the amount of stock which may be issued. Ten provide that shares are not to be issued to stockholders until they are paid for in full. Ten limit the amount of stock which one person may own to \$ 1,000 ; and one of these ten forbids that any one person own more than a third of the stock outstanding, while another gives an association the power to change the limits. Three laws state that the limit of individual stock ownership shall be as prescribed in the by-laws of the associations. Four provide that one person must not own more than 20 per cent. of the stock, one that he must not own more than 10 per cent. thereof ; one limits him to one share ; one to five shares ; one to \$ 400 ; and one to \$ 5,000. Four do not touch on this point and seven relate to non-stock organizations.

Eleven laws provide for the transfer of shares of stock, six of them making the permission of the board of directors necessary to a transfer. Four laws leave this matter to the by-laws of each association ; and one allows an association to insert in its by-laws a clause giving it the option of purchasing any stock which may be for sale.

It is frequently desirable for two associations to amalgamate or for one to hold stock in another, and fourteen of the laws have made some provisions for this. Some of the laws limit the amount that may be so invested and some provide for the authority to invest. The commonest device is to limit the amount which may be thus invested to 25 per cent. of an association's capital, and to stipulate that such investment must be authorized by a vote of two thirds of an association's members.

Voting power. — Twenty-three of the laws provide that each member of an association shall have one vote, irrespectively of the amount of stock he holds. Two state that each association shall set forth in its articles of incorporation or by-laws the rules to be followed in this matter.

Seventeen deal with the question of voting by proxy and by post. Of them seven allow voting by post if a written copy of the question voted on accompany the vote ; five leave the questions of voting by proxy and by post to be decided by the by-laws of the associations ; two allow both these

forms of voting ; one provides for voting by post but forbids voting by proxy ; one forbids voting by proxy but allows provision for voting by post to be made in an association's by-laws ; and one forbids voting by proxy and does not refer to voting by post.

Distribution of Profits. — It is in their method of distributing profits that many organizations fail to reach the co-operative ideal. The co-operative laws make very various provisions as to this point. Some state that profits shall be distributed to those entitled to them as the by-laws provide ; others make detailed provision for the distribution. It is considered under the heads of the payment of interest on capital stock, the formation of a reserve fund, provision for an educational fund, and the payment of a dividend to suppliers.

Eleven laws leave the question of dividends on stock or interest on money invested in shares to be decided by each association's by-laws ; four laws do not refer to this point ; six provide that a dividend on stock shall not exceed 6 per cent. but four of these six allow associations to change this regulation at will ; two make 8 per cent. the maximum rate ; two make it 10 per cent. and subject it to revision by the associations ; one makes it 5 per cent. ; and one either 5 or 6 per cent.

Nine laws provide that a reserve fund shall be formed in the manner stipulated by the by-laws ; ten do not mention this point ; nine provide that not less than 10 per cent. of profits shall be set aside for a reserve fund until this be equal to 30 per cent. of the paid-up capital, but six of these nine provide that associations may revise this rule ; one provides that not less than 5 or more than 25 per cent. of net profits be thus set aside ; another makes these limits 10 and 25 per cent ; another provides that not less than 5 per cent. shall be set aside until a sum equal to 20 per cent. of the paid-up capital has been accumulated ; another that 10 per cent. shall be set aside until a sum equal to 20 per cent. of such capital has been accumulated ; and yet another that less than 10 per cent. shall be set aside until a sum equal to 50 per cent. of such capital has been accumulated.

Eleven laws provide that the educational fund shall be as stipulated in the by-laws ; 13 do not mention this fund ; 6 provide that 5 per cent. of net profits shall be set aside for it but 4 of them allow associations to change this rule ; one law states that there shall be an educational fund which shall not exceed 5 per cent. of net profits ; one that, subject to revision by the associations, it shall not exceed 2 per cent. of such profits ; and one that $2\frac{1}{2}$ per cent. of net profits shall be used for this purposes.

Twelve co-operative laws state that non-members who supply the associations with material shall or may receive dividends, several specifying that the rate at which such dividends are paid shall be half that at which those to members are paid. Several laws do not touch on this point, and many leave the matter to be decided by the by-laws.

Dissolution. — Sixteen laws provide for the dissolution of organizations. Eight allow dissolution to take place at the written request of two thirds of the members of the association concerned ; five provide that if an association have not paid dividends on stock for five consecutive years, five or more

members thereof may petition the court for its dissolution; one makes a similar provision for the case of an organization which has not paid dividends for three consecutive years; one provides that the vote of a majority of the members may bring about a dissolution; and one that the procedure for dissolution shall be that laid down by the general corporation law.

Annual reports. — Sixteen laws stipulate that associations shall make certain reports. Ten of them provide for an annual report to the Secretary of State, and two of these for other additional reports, one to the State Division of Markets and one to the State agricultural college. Two laws provide that the creameries shall report to the Dairy and Food Commissioner of the State; one that reports shall be made to the Commissioner of Agriculture.

Use of the word "Co-operative". — Eleven laws restrict the use of the word "co-operative". Generally speaking, it may be applied only to an association which has been organized after the relevant law on co-operation has been passed and which conforms to the provisions of this law.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

CANADA.

A NATIONAL WOOL GROWERS' ORGANIZATION. — REYNOLDS (Edward W.) in *The Grain Growers' Guide*, Winnipeg, 20 February 1918.

In order to examine the methods by which the new conditions arising out of the war could be met, Canadian growers of wool held a series of meetings at Toronto from the 5th to the 8th of last February, and after a far-reaching and comprehensive discussion reached an agreement.

It is interesting to note that the Canadian government was especially favourable to the organization in a compact group of wool growers in the Dominion, and that arguments in favour of such organization were advanced by a State official, the chief of the Sheep and Goat Division of the Federal Department of Agriculture. He pointed out how anomalous was the present unco-ordinated position, which led to the exporting of certain wools from Canada and a consequent necessary importing, in order to supply the needs of Canadian industry, of Australian wools.

The committee decided to advise the delegates to form a company with a capital of \$ 200,000 and shares at \$ 10 par, none but sheepfarmers and those engaged in agricultural pursuits being allowed to acquire shares. The head-office of the company will be at Toronto. The annual meeting will be held in the first week in February, the shareholders in each province electing representatives, and ten delegate shareholders forming a quorum. Each delegate shareholder will have only one vote, however many shares he represents. Shares cannot be jointly owned, but associations may hold shares in the name of an individual himself eligible to hold them.

The directors have power to negotiate with financial institutions in order to obtain money on the company's credit, to issue bonds, debentures and other securities, and to raise money in other legitimate ways. The board of directors is authorized so to conduct the company's affairs as to provide for the payment of 6 per cent. interest on the paid-up capital, and further to provide a reserve fund which shall not exceed 1 per cent. of the year's sales in any one year and shall at no time exceed the paid-up capital. Any further annual surplus funds in the company's possession shall be distributed to those supplying it with wool, whether they are shareholders or not, in proportion to the business done.

The Canadian Co-operative Wool-growers, Limited, will be a fully organized company with a Dominion charter of incorporation. It is expected that within a year the head-office and warehouse will be handling nine or ten million pounds of wool, and in time the entire Canadian clip. Possibly

a special office, where Canadian wool will be handled, will be opened in Boston, Massachusetts.

Special permission was obtained from the Federal Department of Agriculture to appoint the chief of the Sheep and Goat Division as general manager of the company.

HUNGARY.

THE UNION OF THE RAIFFEISEN SOCIETIES OF HERMANNSTADT (Siebenbürgen) in 1915-1916.

This union comprised at the end of 1915-1916 the General Savings-Bank of Hermannstadt, the Central Union of Selling Societies, 184 savings and loan societies having 16,602 members, 59 selling societies having 3,736 members, five co-operative cellars having 163 members, and a co-operative mill having 37 members — in all 252 societies and 20,538 members. As compared with the membership in 1914-1915 the latter figure showed an increase of 117 while the number of societies had not changed.

The year 1915-1916 ended before the Rumanian invasion, and the Raiffeisen banks profited largely by the prosperity of all rural enterprise. The 183 banks which have supplied figures issued bills for a total sum of 12,104,799 crowns, or for 3,111,318 crowns more than in the previous year; and loans on bills of exchange amounted to 492,698 crowns, or 162,844 crowns more than in the previous year. The liabilities of the General Savings Bank of Hermannstadt were reduced by 2,922,682 crowns and amounted to 3,947,222 crowns; while the balance of this bank's available funds increased by 720,314 crowns, reaching the amount of 968,290 crowns. The bank's assets increased by 2,614,749 crowns, reaching the amount of 3,063,564 crowns; its reserve investments increased by 222,765 crowns, being brought up to 1,911,362 crowns; its savings deposits amounted to 13,909,800 crowns, having increased by 3,682,514 crowns; its reserves to 1,713,020 crowns, having increased by 184,926 crowns; and its other funds to 165,616 crowns, having increased by 28,260 crowns. One hundred and seventy societies declared a total net profit of 161,904 crowns, and 13 societies had to bear losses aggregating 10,314 crowns.

Fifty-seven selling societies which supplied figures as to their business made sales representing altogether 1,483,818 crowns in the year under consideration, the increase on the previous year's total being one of 305,510 crowns. The stocks in warehouse were valued at 365,335 crowns; the members' share capital amounted to 54,336 crowns and the reserves to 82,552 crowns. Fifty-five societies realized a net profit of 27,149 crowns; while two had losses amounting to 1,427 crowns. The dividend allotted to members amounted to 22,278 crowns or 4 per cent.

The purchases of the wholesale stores societies covered 658,229 crowns (54 per cent. of the total value of their purchases). The stocks in warehouse were valued at 80,800 crowns. The shares held by societies affiliated to the

union represented altogether 11,600 crowns, the reserves 24,370 crowns, and the net surplus 26,018 crowns. Of this last sum 9,170 crowns (1 ½ per cent.) were distributed to members as a dividend; 557 crowns (5 per cent.) were paid as interest on shares; 1,542 crowns were paid to the managers; and 13,844 crowns were paid into the reserve. It is thus evident that the wholesale selling society is still a quite modest enterprise.

In 1916 sales amounted to 652,068 crowns as against 647,248 crowns in 1915. Net profits amounted to 63,716 crowns; and 18,780 crowns were distributed among the shareholders as a dividend (3%). During the occupation of Hermannstadt by the Rumanians the Central Union closed its doors, which fact makes the increase attested by the figures referring to sales most satisfactory. The reserve fund amounted to 40,167 crowns. The share capital has not changed. The warehoused merchandise was valued at 48,824 crowns.

ITALY.

1. THE FORMATION OF THE NATIONAL FEDERATION OF AGRICULTURAL CO-OPERATIVE SOCIETIES. — *La Cooperazione Italiana*, No. 125, Milan, 1 March 1918.

It was decided on 24 February, at a congress of agricultural co-operative societies at Reggio d'Emilia and on the initiative of the *Lega Nazionale delle Cooperative*, to constitute the *Federazione Nazionale delle Cooperative agricole*, which will have its headquarters at Bologna and will admit as its constituent elements "only co-operative societies open to all, exercising their class action along lines laid down by the national organisms of resistance and co-operation". According to the scheme of the by-laws drawn up by this league, it is the aim of the federation: a) to encourage the initiation and development of co-operative societies and collective colonies and farms in all the districts and farms in Italy most adapted to them; b) to maintain the moral and economic superiority of agricultural co-operation, fighting all the forms of exploitation and parasitism which intervene between the landowner and the labourer, and facilitating in every way the direct undertaking of agricultural works by labourers on the land united in agricultural co-operative societies; c) to organize offices and commercial agencies for the collective purchase of the primary material necessary to agriculture and of agricultural machines and implements and for the sale of the products of the soil; d) to conduct establishments for the production of manures and articles useful to agriculture; e) to provide for a better defence of agriculture against the losses caused by fires, hail and the sickness and death of live stock by means of organizations for mutual aid; f) to undertake the management of farms directly or on behalf of federated organizations; g) to found scientific offices and laboratories of experiment in order to give agricultural activity the largest possible contribution in advice and practical aid.

At the congress wishes were further formulated that the government

should : 1) encourage the constitution by rapid methods of co-operative societies, collective agencies and agricultural colonies and institutions; 2) ensure by making advances to agricultural labourers their provision of the primary material, machines and implements necessary to agriculture; 3) give collective bodies of labourers a preference when the lands of the State domain were assigned; 4) facilitate by special measures the concession on lease or otherwise of the lands of public administrations; 5) constitute mixed provincial commissions to determine equitable rents.

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2. THE NATIONAL BANK OF THE ITALIAN RURAL FUNDS IN 1917. — Report of the Administrative Council and the Commissioners of Accounts presented to the ordinary general meeting of members at Rome on 10 March 1918.

The *Banca Nazionale delle Casse Rurali Italiane* was organized as a co-operative joint stock society and became active with a capital of 125,000 liras on 1 January 1915. It has to a large extent ensured the rediscount at a privileged rate of its paper at the Bank of Italy and some flourishing co-operative banks. Its principal aim is "to supply funds to the rural funds and other mutual and co-operative societies concerned with the diffusion of credit especially in the country". Thanks to the administrative systems which it has adopted it has obtained results worthy of mention. As is stated in the report presented to the ordinary meeting of members on 10 March 1918, it has in the first three years of its existence granted loans in return for signed bills as follows: in 1915 for the amount of 948,829.28 liras; in 1916 for 2,690,410.73 liras and in 1917 for 3,096,067.08 liras; or for 6,735,307.09 liras on all.

The increase of savings deposits and deposits on current account has been particularly noteworthy. This item was represented on 31 October 1917 by 1,247,029 liras and on 28 February 1918 by 1,431,205 liras. The year 1917 closed with a net profit of 9,422.49 liras, distributed as follows: to the ordinary reserve 471.19 liras; for the amortization of chattels 264 liras; to the extraordinary reserve for fluctuations in the value of securities 5,327.30 liras; balance carried over 3,360 liras.

3. A MEETING OF AGRICULTURAL CO-OPERATIVE SOCIETIES IN SICILY. — *La Cooperazione Italiana*, No. 1283, Milan, 15 February 1918.

A meeting of agricultural co-operative societies has been held at Palermo. Its chairman was the manager of the Office for the Inspection and Assistance of Agricultural Co-operative Societies which was founded at Bologna by the *Istituto Nazionale di Credito per la Cooperazione*. At this meeting a motion was approved which demanded, among other things, a) that the lands of the *latifondia* and lands not directly cultivated by their owners should be given to the agricultural co-operative societies, and should

constitute an inalienable domain for the profit and use of collective bodies of workers ; b) that the fixing of the customary dues for the usufruct of lands, and the making of decisions in every controversy regarding the passage of land to co-operative institutions, should be within the competence of special councils of arbiters ; c) that when land has thus been ensured in perpetuity to workers united in associations, its value should preferably be realized by a system of individual usufruct which would necessarily involve the carrying out of improvements on land granted for long terms, but that associations should reserve to themselves such special crops as are ill fitted to be entrusted to isolated workmen ; d) that in addition to the land, the land credit necessary to emancipation from burdens and to eventual purchase should be ensured, and also credit to provide for improvements, agricultural settlement, roads, buildings, a water-supply, plantations, etc. and that there should at the same time be provision for the protection and technical assistance of agricultural co-operative societies.

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4. THE ACTIVITY OF THE DEPARTMENTS FOR PROPAGANDA, CONSULTATION AND ASSISTANCE OF THE "LEGA NAZIONALE DELLE COOPERATIVE" IN 1917. — *La Cooperazione Italiana*, organ of the *Lega Nazionale delle Cooperative*, No. 1283, Milan, 15 February 1918

Among the best organized bureaux of the *Lega Nazionale delle Cooperative*, or National League of Co-operative Societies, the *Cattedra della Previdenza* (Chair of Thrift) and the *Ufficio di Consulenza legale* (Office of Legal Consultation), which in spite of present difficulties were intensively at work throughout 1917, deserve mention. The Chair of Thrift is concerned with the propagation of the principles of thrift and co-operation by holding lectures and taking part in meetings, congresses and committees. It also renders help and advice in respect of technique, legal matters, administration and book-keeping to co-operative and mutual societies. The following tables group the results of the work accomplished by this institution in 1917 and compare them with those obtained in the three previous years :

Oral Propaganda and Lectures				Inspection of Books and Technical and Administrative Help				
	Congresses, meetings, councils and committees	Lectures and conferences	Total	Year	Discusses, by-accounts, researches, reports	Various activity, answers to questions	Inspects books	Total
1914	70	62	132	1914	22	117	35	174
1915	54	20	74	1915	41	98	10	149
1916	88	13	101	1916	30	214	5	249
1917	80	30	110	1917	38	501	6	545

La Cooperazione Italiana, the league's organ, also deals with the principal questions which arise in the sphere of co-operative insurance. To speak only of questions connected with the thrift and insurance of societies, the following were published in 1917: 170 columns of propaganda for the *Cassa Nazionale di Previdenza*, 20 articles on this subject, 48 articles on insurance against accidents, 46 articles on insurance by societies in general, 108 paragraphs and letters on thrift and co-operation in Italy and abroad. There was also a large distribution of the literature of propaganda — manuals, pamphlets, forms for book-keeping etc.; and the *Annuario Statistico della Cooperazione Italiana* (Statistical Yearbook of Italian Co-operation), which appeared in the first months of 1917, was largely circulated.

We reproduce the following data as to the activity of the *Ufficio di Consulenza Legale*, an office which gives advice in legal matters.

						Co-operative Societies				
		Advice in writing	Verbal consultation	Enquiries on the spot	Newspaper articles	sumpt	labour	agricult	building	mixed
1914	1269	1103	139	10	17	634	296	86	36	86
1915	1168	969	176	7	23	534	319	43	73	—
1916	859	744	100	—	15	305	204	37	45	—
1917	426	426	25	—	10	252	109	10	181	—

To this work which the league has accomplished we should add the varied initiative which it has taken during the year and as to which we have kept our readers informed.

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5. THE "FEDERAZIONE ITALIANA DEI CONSORZI AGRARI" IN 1917. — *L'Italia Rurale*, organ of the federation, No. 540, Piacenza, 26 March 1918.

This Italian Federation of Agricultural Consortia made sales in 1917 for the total sum of 64,109,580 *liras*, a very high figure which shows, as is remarked in the report of the administrative council, the influence of the high price of primary material and of the constant increase of freight and the cost of insurance against the risks of war, and of the exchange. As in previous years the federation has undertaken the direct importation of nitrate of soda from Chile, and the provision of sulphate of copper (60,000 quintals), sulphur (23,460 quintals, kaffir paste (16,435 quintals), food for live stock (10,000 quintals), and wheat for sowing (13,695 quintals). It has continued moreover to concern itself with the transport

of phosphorites from the ports of Tunisia and Algeria on behalf of the co-operative superphosphate factories of Piacenza, Novara, Secugnago, Cremona, Bagnolo, Mella, Cerea, Mantua and Montebelluno. The sale of agricultural machines accounted for 6,039,179 liras as against 2,913,725 liras in 1916.

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6. THE ACTIVITY OF THE "PRIMO CONSORZIO AGRARIO COOPERATIVO PIACENTINO". — *L'Agricoltura Piacentina*, No. 3, Piacenza, 31 March 1918.

Among agricultural purchasing societies which were the object of a special enquiry, of which the *Federazione Italiana dei Consorzi Agrari* published the results in 1911, this *First Co-operative Agricultural Consortium of Piacenza* occupies a leading place. As appears from its report for 1917, its sales in that year reached a value of 11,336,940 liras.

The work of the Consortium of Piacenza consisted chiefly in supplying merchandise which was a first necessity to agriculture. The manufacture of superphosphates and their distribution constitute one of the most important forms of its activity. 226,770 quintals of mineral superphosphates, or 49,000 quintals more than in the previous year, were delivered to the agriculturists of the province. There was also an increase in the corresponding quantity of nitrate of soda which reached 6,646 quintals as against 6,391 in 1916, and in the corresponding quantities of sulphate of copper and kaffir paste (14,325 quintals in 1917 as against 11,505 quintals in 1916). Wheat for sowing was supplied up to 9,881 quintals, as against 5,850 in 1916. There was also a very notable development in the trade in agricultural machines of which the value surpassed half a million liras.

An initiative worthy of note was taken in the matter of distributing 1203 ounces of silkworm-eggs and drying more than 30,000 kilogrammes of cocoons, as also in that of buying and circulating tractors for mechanical cultivation.

The consortium was active through the medium of 32 agencies entrusted to very skilful agents. The year closed with a net profit of 200,654 liras as against one of 150,000 liras in 1916. The society's capital increased by 100,000 liras and its membership by 200, an unmistakable sign of the popularity of this institution among the agriculturists of the province who had on 31 December entrusted two and a half million liras to it in the form of interest-bearing bonds.

MAURITIUS.

CO-OPERATIVE CREDIT IN MAURITIUS. — Report on the Working of Co-operative Credit Societies in Mauritius for the year ending 30th June 1918.

On 30 June 1918 there were on the island of Mauritius 23 co-operative credit societies which comprised 2,837 members and had a total working

capital of Rs. 237,797, as against 20 societies including 2,271 members and having a total working capital of Rs. 198,468 on 1 July 1917.

All the societies are small: their individual membership varies from 51 to 245. Loans are usually issued for a year or a shorter period. They are granted in the earlier part of the year and are repayable after the sugar-crop has been gathered. Loans for shorter terms are made to growers of crops other than sugar-cane and are recoverable after such crops have been harvested. On the higher plateaux of the island loans have in a few instances been made for a period of two years in order to help members to replant their cane-fields, the virgin crop of which would not be reaped until from twenty to twenty-two months after the planting. The rate of interest always charged on loans is 12 per cent.

Loans are issued principally to enable the growing and manuring of cane and other crops; but it is not uncommon to grant them to enable the purchase of land, a cow or a carriage-poney or the repair of a cart, and in special circumstances they have covered the expenses of a marriage or funeral or released members from the hands of moneylenders.

The capital of the societies is made up of money collected as shares, deposits of members, deposits of non-members, and loans from government funds. The following table shows the present position:

Year	No. of Societies	Shares	Deposits of Members	Deposits of Non-Members	Government Loans
1914	15	Rs. 52,721	6,067	23,302	37,550
1915	20	Rs. 87,028	37,220	22,662	35,550
1916	23	Rs. 106,143	41,707	20,814	41,180

Government loans are granted only at the beginning of the life of a society, for it is held that after two or three years of work a society should inspire enough confidence to allow it to obtain money from other sources. All the societies have decided to pay no dividends until five years after their registration.

The inspection of the societies found that their financial position was in general satisfactory. All the 23 societies closed the year ending on 30 June 1918 with a profit which amounted in the aggregate to Rs. 21,567.

RUSSIA.

THE NIJNI-NOVGOROD UNION OF SMALL CREDIT ASSOCIATIONS — *The Russian Co-operator*, Vol. 2, No. 5, London, March 1918.

The following information is taken from a memorandum submitted by the Nijni-Novgorod Union of Small Credit Institutions to the local branch of the State Bank.

The union's business of buying and selling goods on commission is developing rapidly. New branches of agriculture and of the kustar

industries which are so important in the province are gradually being covered. The union's turnover in this department has been as follows, in the five years for which the latter has existed :

	1913	1914	1915	1916	1917 (7 months)
	Roubles	Roubles	Roubles	Roubles	Roubles
Bought . . .	63,167	289,257	764,279	2,035,184	180,743
Sold	62,773	289,699	739,424	1,650,713	3,052,985

In pursuing this activity the union has entered into agreements with the local zemstvos and food control committees, and thus has monopolized the purchase of agricultural machinery and implements, seeds, fertilizers, ironware, nails, horseshoes and other articles for the entire province.

It has placed orders in advance for this spring's sowing for more than 3,000,000 roubles, and ordered 3,000,000 roubles' worth of agricultural machinery and implements through the Moscow Narodny Bank.

With the assistance of the local food control committees it began itself to produce the simplest agricultural machines. The repairing and kустar shops and works which it owns have produced 3,000 ploughs and were expected to produce 8,000 last winter.

The union has also helped to unite the sales of a number of kустar artels in the province, among them felt making artels whose output was expected to be worth 3,000,000 roubles, felt-boot making artels having an output estimated at 1,000,000 roubles, cutlery artels having one estimated at 5,000,000 roubles, and forest-working artels which were expected to supply timber for one million and various wooden goods for 200,000 roubles.

The union is organizing the sale of flax which is of great importance to some districts of the province. It buys and supplies all the wool needed by the felt-making artels, spending more than a million roubles a year on such purchases.

The prevailing scarcity of goods makes it practically impossible to buy only on commission, for it is often necessary to buy goods as soon as they appear on the market. The union has therefore obtained from the Nijni-Novgorod branch of the State Bank an advance of one million roubles for a term of twenty years.

Part II: Insurance and Thrift

GERMANY.

THE DEVELOPMENT OF INSURANCE AGAINST HAIL, (conclusion).

SOURCES :

ROHRBECK (D. Jur. and D. Phil., W.) (of Cologne): *Die Deutsche Hagelversicherung in Wirtschaft und Recht der Versicherung* — Supplement to *Mitteilungen für die öffentlichen Feuerversicherungs-Anstalten*, published by the *Verband öffentlicher Feuerversicherungs-Anstalten in Deutschland* — 49th year, new series, 6th year, nos. 1 and 2, 87 pp., Kiel, February 1917.

§ 14. THE VARIOUS DATA AS TO INSURANCE AGAINST HAIL, EXPRESSED IN TERMS OF A PERCENTAGE OF THE INSURED SUMS.

The tables which we have reserved for the conclusion of this account will allow us more and more to define the preceding data in that they will express them from one of the most significant points of view in the domain of insurance. The absolute figures which we have already published in this connection do not really acquire their full value until they can be reduced to percentages of the sums insured. This reduction has been made for the period from 1881 to 1915. But we should notice that for the period from 1881 to 1900 the calculation has been made only every five years, that is for the years 1881, 1885, 1890, 1895 and 1900. After the last named date each year is considered, with some exceptions which we will not fail to notice as we show the position of the different groups of societies.

a) *Stock Companies*. — In 1915 and even after 1912 these companies numbered four, but in 1881 ten of them were active. After 1885 there were only five of them. In the interval the *Preussische Hagelversicherungsgesellschaft* does not appear in the relevant table, and in 1912 the *Vaterländische Hagelversicherungsgesellschaft*, having gone into liquidation, has also disappeared. Thus some of the fluctuations noticed in the various items of the account-keeping of this group of societies are largely explained, at least in so far as the periods which immediately followed the years 1881 and 1911, respectively, are concerned. These fluctuations affected the absolute figures which referred to all these societies taken together. In the relative figures, expressed as percentages, no trace of them can be found except in the

a) *Stock*

		Percentage of sums						
		1881	1885	1890	1895	1900	1901	1902
Hagel- Assenur- Gesellschaft	Premiums	0.91	1.01	1.02	1.03	1.01	1.03	1.01
	Damages	0.52	0.93	0.85	0.69	0.60	0.46	0.66
	Costs of administr. and provisions	0.30	0.28	0.25	0.27	0.24	0.24	0.24
	Reserve funds	0.24	0.00	0.14	0.05	0.04	0.37	0.33
Kohlische Hagel- versicherung- Gesellschaft	Premiums	0.84	0.86	0.87	0.89	0.89	0.90	0.90
	Damages	0.60	0.76	0.69	0.56	0.73	0.67	0.89
	Costs of administr. and provisions	0.15	0.16	0.16	0.19	0.18	0.19	0.17
	Reserve funds	0.32	0.02	0.50	1.16	0.60	0.66	0.49
Magdeburgische Hagel- versicherung- Gesellschaft	Premiums	0.98	0.97	0.98	0.99	1.00	1.01	1.13
	Damages	0.93	0.77	0.75	0.56	0.77	0.65	1.00
	Costs of administr. and provisions	0.24	0.20	0.21	0.24	0.24	0.25	0.26
	Reserve funds	0.00	0.00	0.42	0.75	0.45	0.54	0.35
	Premiums	0.93	0.95	0.92	0.90	0.87	0.88	0.88
	Damages	0.75	0.79	0.61	0.48	0.49	0.57	0.71
	Costs of administr. and provisions	0.16	0.15	0.16	0.20	0.19	0.20	0.20
	Reserve funds	0.00	0.02	1.04	1.94	2.00	2.07	1.92
Vaterländische Hagel- versicherung- Gesellschaft	Premiums	0.90	0.98	1.01	0.97	0.94	0.95	0.94
	Damages	0.23	0.91	0.85	0.52	0.70	0.63	1.07
	Costs of administr. and provisions	0.20	0.19	0.19	0.23	0.19	0.19	0.20
	Reserve funds	0.00	0.00	0.04	0.35	0.08	0.16	0.00
Preussische Hagel- versicherung- Gesellschaft	Premiums	0.91	—	—	—	—	—	—
	Damages	0.60	—	—	—	—	—	—
	Costs of administr. and provisions	0.20	—	—	—	—	—	—
	Reserve funds	0.00	—	—	—	—	—	—
Total	Premiums	0.91	0.94	0.95	0.95	0.94	0.95	0.98
	Damages	0.75	0.76	0.70	0.51	0.62	0.57	0.82
	Costs of administr. and provisions	0.20	0.18	0.19	0.22	0.21	0.25	0.22
	Reserve funds	0.08	0.01	0.50	1.01	0.77	0.80	0.71

Companies.

annually insured.												
1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
1.00	0.99	0.98	1.02	1.12	1.20	1.40	1.31	1.32	1.30	1.25	1.24	1.23
0.37	0.58	1.08	0.74	1.01	1.04	0.35	0.88	0.31	0.56	0.28	0.41	0.39
0.24	0.27	0.25	0.27	0.26	0.24	0.28	0.25	0.27	0.22	0.22	0.20	0.19
0.46	0.76	0.83	0.50	0.50	0.37	0.37	0.79	1.65	1.50	2.10	2.63	2.95
0.91	0.91	0.90	0.92	0.95	0.99	1.05	1.10	1.15	1.12	1.12	1.10	1.09
0.55	0.53	1.59	0.99	0.93	1.24	0.31	1.09	0.41	0.70	0.32	0.54	0.35
0.18	0.19	0.16	0.17	0.17	0.17	0.20	0.21	0.20	0.17	0.17	0.17	0.15
0.59	0.64	0.00	0.00	0.00	—	—	—	—	0.10	0.50	0.70	0.90
1.15	1.13	1.14	1.20	1.20	1.14	1.21	1.26	1.31	1.26	1.24	1.22	1.19
0.76	0.78	1.64	1.26	1.13	1.30	0.32	1.12	0.44	0.86	0.49	0.74	0.45
0.27	0.26	0.25	0.26	0.25	0.25	0.28	0.26	0.30	0.24	0.25	0.22	0.22
0.42	0.50	0.00	0.60	0.00	0.00	0.00	0.00	0.10	0.21	0.46	0.63	0.83
0.88	0.89	0.89	0.91	0.93	0.96	1.03	1.05	1.08	1.07	1.08	1.05	1.04
0.47	0.71	1.23	0.62	0.82	1.26	0.23	0.88	0.32	0.52	0.25	0.39	0.28
0.20	0.19	0.19	0.19	0.18	0.18	0.21	0.19	0.22	0.16	0.17	0.16	0.15
2.01	2.00	1.65	1.71	1.72	1.72	1.53	1.87	2.27	2.07	2.14	2.14	1.94
0.95	0.94	0.94	0.96	0.93	1.03	1.12	1.16	1.18	—	—	—	—
0.67	0.48	1.16	0.90	0.89	1.15	0.21	0.77	0.33	—	—	—	—
0.21	0.20	0.23	0.23	0.21	0.21	0.25	0.26	0.26	—	—	—	—
0.00	0.15	0.00	0.00	0.00	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
1.00	0.99	0.99	1.03	1.05	1.05	1.14	1.16	1.20	1.20	1.17	1.14	1.12
0.55	0.61	1.43	0.96	0.97	1.23	0.29	0.98	0.37	0.68	0.34	0.54	0.36
0.22	0.22	0.22	0.22	0.21	0.20	0.24	0.23	0.24	0.20	0.20	0.19	0.18
0.78	0.86	0.44	0.41	0.43	0.43	0.39	0.52	0.74	0.90	1.29	1.39	1.50

percentages for the combined societies, for those which apply to each society necessarily give a clearer view of the different elements examined.

The percentages for the combined societies give the following extreme figures: *premiums* which were 0.91 per cent. in 1881, the minimum figure, became 1.12 per cent. in 1915, having already reached 1.20 per cent. in 1910 and in 1911. The ratio of premiums to insured sums increased constantly from 1881 to 1912, and after 1911 diminished but at a rate which left a significant margin indicating the increase of premiums. The percentage formed by *damages* was 0.75 in 1881 and 0.36 in 1915. Their maximum was 1.43 in 1905, and their minimum, 0.29, occurred in 1909. *Costs of administration* passed from 0.20 per cent. of the insured sums in 1881 to 0.18 per cent. in 1915. Their minimum was 0.15 per cent, which occurred in 1885, and their maximum, 0.25 per cent, occurred in 1901. As for the *reserve funds* they formed a percentage which rose from 0.08 in 1881 to 1.50, their maximum, in 1915. Their minimum, 0.01, occurred in 1885.

It should be remembered that if the *premiums* for all kinds of societies taken together be considered for the whole period from 1881 to 1915 an average figure of 1.08 per cent. is obtained. The corresponding average for *damages* is 0.51 per cent., for *costs of administration* 0.17 per cent., and for the *reserves* 0.49 per cent.

An analysis of these figures in so far as they concern the *Berliner Haas Assurancegesellschaft* from 1881 to 1915 gives the following results. *Premiums* were 0.91 per cent. in 1881 and 1.23 per cent. in 1915. The former of these percentages was the minimum; the maximum, 1.40 per cent., occurred in 1909. *Damages* were 0.52 per cent. in 1881 and 0.39 per cent. in 1915. The minimum, 0.28 per cent., occurred in 1913; the maximum, 1.08 per cent., which exceeds the percentage for premiums by 0.10 per cent., in 1905. *Costs of administration* oscillated between 0.30 per cent., the maximum which occurred in 1881, and 0.19 per cent., the minimum which occurred in 1915. *Reserve funds* were 0.24 per cent. in 1881 and reached 2.95 per cent., their maximum, in 1915; but were non-existent in 1885.

The *premiums* of the *Kölnische Hagelversicherungsgesellschaft* passed between 1881 and 1915 from 0.84 per cent., their minimum which is found in 1881, to 1.09 per cent. in 1915, having reached their maximum, 1.15 per cent., in 1911 until which date their increase was continuous. *Damages* were represented by 0.60 per cent. in 1881 and by only 0.35 per cent. in 1915, their minimum, which occurred in 1909, being only 0.31 per cent., and their maximum, found in 1905, 1.59 per cent., a percentage which exceeded that for premiums by 0.69 per cent. A parallel excess of 0.07 per cent. occurred in 1906 and one of 0.25 per cent. in 1908. *Costs of administration* varied from 0.18 per cent. in 1881 to 0.15 per cent., their minimum, in 1915. Their maximum, 0.21 per cent., occurred in 1910. *Reserve funds* passed from 0.32 per cent. in 1881 to 0.90 per cent. in 1915. The maximum, 1.16 per cent., was reached in 1895. In this society however reserves and payments into reserves were non-existent during the three years 1905, 1906 and 1907; and from 1908 to 1911, inclusively, the statistics of percentages give no indications as to them.

For the *Magdeburgische Hagelversicherungsgesellschaft* and the *Berliner Hagel-Assecuranz* we have complete series of data. *Premiums* go from 0.98 per cent. in 1881 to 1.19 per cent. in 1915, their minimum, 0.97 per cent., occurring in 1885 and their maximum, 1.31 per cent., in 1911. After the latter year the percentage decreased continuously as in the case of the company last examined. *Damages* were at 0.93 per cent. in 1881 and reached 0.45 per cent., their minimum, in 1915. This figure was at its highest, 1.64 per cent., in 1905 when it exceeded the percentage formed by premiums by 0.50 per cent. This excess occurs on the whole infrequently considering the length of the period: it appears as 0.06 per cent. in 1906 and as 0.16 per cent. in 1908. *Costs of administration* were 0.24 per cent. in 1881 and 0.22 per cent. in 1918. The minimum is represented by 0.20 per cent. in 1885 and the maximum by 0.30 per cent. in 1911. *Reserve funds* reached their maximum, 0.83 per cent., in 1915, but were non-existent from 1881 to 1885 and in 1905, 1906, 1907, 1908, 1909 and 1910.

The *Union* also figures in our series for the whole period. *Premiums* were 0.93 per cent. in 1881 and 1.04 per cent. in 1915. They reached their minimum, 0.87 per cent., in 1900, and their maximum, 1.08 per cent., in 1911 and 1913. The percentage formed by losses went from 0.75 per cent. in 1881 to 0.28 per cent. in 1915. The minimum, 0.23 per cent., occurred in 1909 and the maximum, 1.26 per cent., in 1908. The percentage formed by damages exceeded that formed by premiums by 0.34 per cent. in 1905 and by 0.30 per cent. in 1908. *Costs of administration* went from 0.16 per cent. in 1881 to 0.15 per cent. in 1915. This latter figure was the minimum and had already occurred in 1885; the maximum, 0.22 per cent., was reached in 1911. The *reserve funds*, non-existent in 1881, had reached as regarded their paid-up part 2.07 per cent. in 1901, attained to a maximum of 2.27 per cent., and were 1.94 per cent. in 1915.

The data for the *Vaterländische Hagelversicherungsgesellschaft* cover only the years from 1881 to 1911, and the data as to the reserve funds do not go beyond 1907. *Premiums* were at 0.90 per cent., their minimum, in 1881, and at 1.18 per cent. in 1911. *Damages* were at their maximum, 1.23 per cent., in 1881 and at 0.33 per cent. in 1911. Their minimum, 0.21 per cent., was reached in 1909. Damages exceeded premiums in 1881 by 0.33 per cent., in 1902 by 0.13 per cent., in 1905 by 0.22 per cent., and in 1908 by 0.12 per cent. *Costs of administration* were represented by 0.20 per cent. in 1881 and by 0.26 per cent., their maximum, in 1911. Their minimum, 0.19 per cent., occurred in 1885, 1890, 1900 and 1901. As to sums paid into the *reserve funds* these were often non-existent, namely in 1881, 1885, 1902, 1903, 1905, 1906, and in 1907, the last year for which this negative item has been recorded. In 1895 however these payments amounted to 0.35 per cent.

For the *Preussische Hagelversicherungsgesellschaft* we have data for 1881. In order not to interrupt the course of this analysis, we will cite them, formless and devoid of interest as they may seem to be: *premiums* 0.91 per cent.; *damages* 0.60 per cent.; *costs of administration* 0.20 per cent.; *reserve funds*, no payment.

b) As regards the Bavarian public institution for mutual insurance, the

Bayerische Landesanstalt our data are like the preceding data but are for a shorter period, that from 1885 to 1915. The figure referring to damages is moreover more analytical than it is for the other societies, for it comprises indications of two kinds, as to damages ascertained and as to damages paid. We will see however that this distinction has no importance except until 1909, after which a complete agreement between the two figures begins.

The percentage formed by *premiums* was 1.18 per cent. in 1885 and kept at this level in the succeeding period, until 1890, and then, increasing regularly, reached 1.67 per cent. in 1906, after which two years of modification brought it to 1.62 per cent., but it reached its maximum, 1.78 per cent., in 1910, sinking afterwards to 1.44 per cent. in 1915. *Damages* went from 1.36 per cent. in 1885 to 1.02 per cent. in 1915. Their minimum, 0.60 per cent., occurred in 1904, and their maximum, 1.82 per cent., in 1900. The *ascertained damages* went from 1.68 per cent. in 1885 to 1.02 per cent. in 1915, reaching their minimum, 0.57 per cent., in 1904, and their maximum, 3.28 per cent., in 1908. In its ratio to the figure standing for ascertained damages that for *paid damages* was subject to a certain reduction, sometimes sufficiently high, until 1908 inclusively. This reduction was 0.32 per cent. of the amount of the insured sums in 1885; 0.10 per cent. in 1890; 0.85 per cent. in 1900; 0.02 per cent. in 1901; 0.32 per cent. in 1902; 1.28 per cent. in 1903; 0.79 per cent. in 1908. Sometimes the contrary phenomenon did indeed appear but always in a less proportion. The percentages by which paid damages exceeded ascertained damages were the following: 0.03 in 1895, 1904 and 1905; 0.02 in 1906; 0.03 in 1907. Sometime, the paid damages exceeded the premiums, namely by 0.18 per cent. in 1885, by 0.03 per cent. in 1890, by 0.55 per cent. in 1900, by 0.08 per cent. in 1901, by 0.24 per cent. in 1902, by 0.39 per cent. in 1903, by 0.87 per cent. in 1908. *Costs of administration* increased almost continuously, from 0.02 per cent. in 1885 to 0.12 per cent. in 1915. The quotas paid into *reserve funds* were 1.10 per cent. in 1885, and 5.91 per cent. in 1915, reaching their minimum, 0.97 per cent., in 1903. Since we are dealing in this case with a State institution we have data as to *State subsidies* from 1885 to 1911, after which they do not figure in the statistics. These subsidies reached their maximum, 0.20 per cent. of the insured sums, in 1885, and fell in 1895 to 0.03 per cent., after which they were most often between 0.07 and 0.10 per cent. It was certainly these subsidies which enabled certain deductions to be made from time to time from the figure representing damages paid.

b) *Public Mutual Institution.*

Kayerische Landesanstalt.

Percentages of sums insured																					
	1881	1885	1890	1895	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	
Premiums	—	1.18	1.18	1.24	1.27	1.30	1.33	1.36	1.59	1.64	1.67	1.65	1.62	1.76	1.78	1.76	1.66	1.57	1.57	1.41	
Damages	—	1.36	1.21	1.07	1.82	1.38	1.57	1.77	0.60	1.37	1.58	1.61	2.49	1.20	1.12	1.10	0.85	1.46	1.17	1.02	
Ascertained damages	—	1.68	1.31	1.04	2.67	1.10	1.89	3.05	0.57	1.34	1.56	1.61	3.28	1.20	1.42	1.10	0.85	1.16	1.17	1.02	
Costs of administration.	—	0.02	0.02	0.02	0.03	0.01	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.08	0.11	0.10	0.11	0.12	0.12	0.12	
Reserve funds	—	1.10	1.19	1.53	1.37	1.38	1.25	0.97	2.70	3.17	3.42	3.57	2.61	3.19	3.58	4.02	4.97	5.31	5.15	5.91	
State subsidies	—	0.20	0.05	0.03	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	—	—	—	—	

c) The private territorial mutual societies furnish altogether the following data expressed as percentages, also for the period from 1881 to 1915. *Premiums* were 0.93 per cent. in 1881 and 0.77 per cent. in 1915, reaching their maximum, 2.06 per cent., in 1908. *Damages* were 0.77 per cent. in 1881 and 0.67 per cent. in 1915. Their minimum 0.59 per cent., occurred in 1909 and their maximum, 1.92 per cent., in 1908. In societies of this group damages rarely exceeded premiums. Such an excess did occur in 1905 when it was only of 0.04 per cent., and in 1906 when it was of 0.01 per cent. of the insured sums. *Costs of administration* were 0.15 per cent. at the beginning and the end of the period, this figure being the minimum, and fluctuations were inconsiderable since the maximum never surpassed 0.20 per cent. Generally, these costs amounted to 0.17 per cent. of the sums insured. Sums paid into the reserve were 0.21 per cent. in 1881, had fallen to 0.10 per cent., their minimum, in 1885, and reached 0.45 per cent., their maximum, in 1914 and 1915.

These total figures are distributed among the various societies of this group of which, it will be recalled, some have initial and additional and the others distributory premiums.

d) The societies of the former type as to which we have data number 12, but the data for the whole period from 1881 to 1915 apply to hardly half of them.

Private Territorial Mutual Societies.

Year		Premiums	Damages	Costs of administration	Reserves
1881	. . . . .	0.93	0.77	0.15	0.21
1885	. . . . .	1.41	1.32	0.18	0.10
1890	. . . . .	0.97	0.81	0.19	0.16
1895	. . . . .	0.78	0.67	0.20	0.32
1900	. . . . .	0.91	0.79	0.20	0.22
1901	. . . . .	0.99	0.88	0.20	0.24
1902	. . . . .	1.08	1.00	0.19	0.21
1903	. . . . .	0.98	0.92	0.19	0.22
1904	. . . . .	0.79	0.68	0.18	0.24
1905	. . . . .	1.59	1.63	0.17	0.24
1906	. . . . .	1.61	1.62	0.17	0.23
1907	. . . . .	1.63	1.56	0.17	0.22
1908	. . . . .	2.06	1.92	0.17	0.20
1909	. . . . .	0.83	0.59	0.17	0.30
1910	. . . . .	1.91	1.82	0.17	0.24
1911	. . . . .	0.93	0.77	0.17	0.33
1912	. . . . .	1.38	1.28	0.16	0.30
1913	. . . . .	1.00	0.80	0.17	0.43
1914	. . . . .	1.25	1.13	0.17	0.45
1915	. . . . .	0.77	0.67	0.15	0.45

The data as to the *Allgemeine Deutsche Hagelversicherungsgesellschaft* extend only from 1881 to 1902. The premiums taken together go from 0.80 per cent. in 1881 to 2.37 per cent. in 1902, reaching a minimum of 0.71 per cent. in 1895. In 1881 and 1895 this society had no additional premiums to record. It is noticeable that its additional exceeded its initial premiums three times out of five, respectively by 0.30, 0.32 and 0.53 per cent. of the amount of the insured sums. The figure standing for *damages* goes from 0.54 per cent. in 1881 to 1.29 per cent. in 1902, reaching a minimum of 0.46 per cent. in 1895, but never exceeds the figure representing premiums. The *costs of administration* are represented by 0.38 per cent., in 1881 and 0.50 per cent. in 1902, the minimum, 0.30 per cent., occurring in 1885. As for *reserve funds* they reached their maximum, 0.19 per cent. in 1881, and in the other years, except in 1885 and 1902 when nothing was paid into them, the sums allocated to them varied from 0.08 to 0.11 per cent.

The *Borussia* society appears in this group for the whole period considered. Its *premiums* were at 0.62 per cent., their minimum, in 1881, and at 1.11 per cent. in 1915, reaching their maximum, 1.89 per cent., in 1910. In 1881 only there were no additional premiums to record. Here also additional exceed initial premiums, by 0.36 per cent. in 1885, by 0.13 per cent. in 1890, by 0.54 per cent. in 1900, by 0.29 per cent. in 1903, by 0.30 per cent. in 1906, by 0.01 per cent. in 1907, by 0.16 per cent. in 1908, by 0.46 per cent. in 1910, by 0.01 per cent. in 1912, and by 0.04 per cent. in 1914. In other years the converse occurred, the initial exceeding the additional premiums by 0.32 per cent. in 1895, by 0.22 per cent. in 1901, by 0.15 per cent. in 1902, by 0.55 per cent. in 1904, by 0.12 per cent. in 1905, by 0.07 per cent. in 1909, by 0.36 per cent. in 1911, by 0.21 per cent. in 1913, and by 0.28 per cent. in 1915. This is to say that almost from year to year a kind of compensatory system established itself where premiums were concerned, members of the society reaping the benefit in that they paid only very reasonable charges. The figure representing *damages* goes from 0.53 per cent. in 1881 to 0.89 per cent. in 1915, its minimum of 0.49 per cent. occurring in 1904 and its maximum of 1.65 per cent. in 1908. Balance was maintained so that in no year *damages* either exceeded or even equalled premiums. *Costs of administration* went from 0.18 per cent., their minimum, in 1881 to 0.24 per cent. in 1915. Their maximum, 0.42 per cent., occurred in 1902, 1903 and 1905. The data as to *reserve funds* begin only in 1890 when they were at 0.03 per cent., their minimum, and reached a payment of 0.30 per cent. in 1915, their maximum, 0.34 per cent., occurring in 1900.

The data of *Ceres* extend from 1890 to 1915. Its *premiums* appear as 1.43 per cent. in 1890 and 0.80 per cent. in 1915, reaching a minimum of 0.79 per cent. in 1904 and a maximum of 2.12 per cent. in 1910. The amount of additional exceeded that of initial premiums only in 1905 by 0.49 per cent., in 1906 by 0.11 per cent., in 1907 by 0.14 per cent., in 1908 by 0.48 per cent. and in 1910 by 0.55 per cent. No additional premiums were recorded in 1915. The excess of the initial over the additional premiums was of 0.01 per cent. in 1890, of 0.16 per cent. in 1895, of 0.31 per cent. in 1900, of 0.07 per cent. in 1901, of 0.06 per cent. in 1902, of 0.24 per

d) *Institution having initial*

		1881	1885	1890	1895	1900	1901	1902
Allgemeine Deutsche Hagelversiche- rungsgesellschaft	Premiums.	0.80	1.44	1.52	0.71	1.14	1.92	
	Damages	0.54	1.14	1.11	0.46	0.52	1.27	
	Costs of administr. and provisions	0.38	0.30	0.45	0.35	0.50	0.54	
	Reserve funds.	0.19	—	0.08	0.10	0.11	0.08	
	Initial premiums	0.80	0.57	0.82	0.71	0.75	0.80	
	Additional premiums.	—	0.87	0.70	—	0.39	1.12	
Borussia	Premiums.	0.62	1.62	1.27	0.98	1.88	1.36	
	Damages	0.53	1.35	1.11	0.72	1.53	1.14	
	Costs of administr. and provisions	0.18	0.26	0.24	0.32	0.34	0.40	
	Reserve funds.	—	—	0.03	0.12	0.34	0.33	
	Initial premiums	0.62	0.63	0.57	0.65	0.67	0.79	
	Additional premiums.	—	0.99	0.70	0.33	1.21	0.57	
	Premiums.	—	—	1.43	1.12	0.95	1.18	
	Damages	—	—	0.67	0.54	0.56	0.80	
	Costs of administr. and provisions	—	—	0.23	0.25	0.46	0.45	
	Reserve funds	—	—	0.05	0.18	0.34	0.36	
	Initial premiums	—	—	0.72	0.64	0.63	0.62	
	Additional premiums.	—	—	0.71	0.48	0.32	0.55	
Deutsche Hagelversicherung- gesellschaft für Gärtnerelen	Premiums.	1.54	1.64	1.52	1.57	1.62	1.64	
	Damages	0.81	0.67	0.43	0.43	0.48	1.12	
	Costs of administr. and provisions	0.56	0.55	0.52	0.60	0.50	0.51	
	Reserve funds.	1.80	2.49	3.38	4.10	3.90	3.78	
	Initial premiums.	1.54	1.64	1.52	1.57	1.62	1.64	
	Additional premiums	—	—	—	—	—	—	
Germania	Dividends.	—	0.27	0.26	0.54	0.63	0.30	
	Premiums.	—	—	1.54	?	—	—	
	Damages	—	—	0.60	?	—	—	
	Costs of administr. and provisions	—	—	0.45	?	—	—	
	Reserve funds.	—	—	0.07	?	—	—	
	Initial premiums.	—	—	0.59	?	—	—	
Hagelversiche- rungsbank (since 1867)	Additional premiums	—	—	0.95	?	—	—	
	Premiums.	0.96	1.04	1.12	1.26	1.10	1.25	
	Damages	0.61	0.76	1.00	0.97	0.63	0.82	
	Costs of administr. and provisions	0.35	0.36	0.23	0.34	0.48	0.45	
	Reserve funds	0.14	0.20	0.27	0.20	0.27	0.34	
	Initial premiums.	0.79	0.83	0.79	0.76	0.73	0.67	
Kaiserliche Hagelversiche- rungsgesellschaft	Additional premiums	0.15	0.21	0.33	0.51	0.37	0.58	
	Premiums.				1.08			
	Damages				0.92			
	Costs of administr. and provisions				0.29			
	Reserve funds.				0.33			
	Initial premiums.				0.68			
System of distributory premiums	Additional premiums				0.41			

d) Institutions having initial

		1881	1885	1890	1895	1900		
Leipziger Hagelversicherungs- gesellschaft	Premiums.	1.69	1.42	1.24	1.35	1.13	1.19	1.27
	Damages	1.58	1.30	1.03	1.14	0.84	0.98	0.96
	Costs of administr. and provisions	0.34	0.38	0.25	0.22	0.44	0.40	0.41
	Reserve funds.	0.15	0.07	0.12	0.18	0.16	0.10	0.14
	Initial premiums	0.73	1.06	0.83	0.66	0.56	0.61	0.61
	Additional premiums.	0.06	0.36	0.41	0.69	0.57	0.58	0.66
Magdeburger Hagelversicherungs- gesellschaft	Premiums	—	0.93	1.49	1.07	1.74	1.56	
	Damages	—	0.51	0.90	0.79	0.93	0.86	
	Costs of administr. and provisions	—	0.21	0.37	0.41	0.47	0.55	
	Reserve funds.	—	0.06	0.12	0.14	0.11	0.17	
	Initial premiums.	—	0.93	—	0.64	0.62	0.64	
	Additional premiums.	—	—	—	0.42	1.12	0.92	
Norddeutsche Hagelversicherungs- gesellschaft	Premiums.	0.84	1.28	0.73	0.63	0.81	0.94	
	Damages	0.64	1.18	0.66	0.65	0.75	0.85	
	Costs of administr. and provisions	0.17	0.18	0.16	0.16	0.16	0.16	
	Reserve funds.	0.11	0.03	0.13	0.21	0.10	0.12	
	Initial premiums.	0.72	0.78	0.67	0.63	0.65	0.65	
	Additional premiums	0.12	0.50	0.07	—	0.16	0.29	
Preussische Hagelversicherungs- gesellschaft	Premiums.	—	—	1.12	0.96	0.79	1.04	
	Damages	—	—	0.82	0.67	0.56	0.84	
	Costs of administr. and provisions	—	—	0.32	0.34	0.33	0.33	
	Reserve funds.	—	—	0.11	0.24	0.25	0.22	
	Initial premiums.	—	—	0.78	0.70	0.64	0.62	
	Additional premiums.	—	—	0.34	0.25	0.14	0.42	
Schweizer Hagelversicherungs- gesellschaft	Premiums.	0.78	1.40	0.87	0.72	0.88	1.00	
	Damages	0.61	1.40	0.91	0.55	0.68	1.02	
	Costs of administr. and provisions	0.08	0.07	0.09	0.09	0.10	0.10	
	Reserve funds.	0.39	0.06	0.10	0.75	0.21	0.21	
	Initial premiums.	0.78	0.81	0.73	0.72	0.72	0.73	
	Additional premiums.	—	0.59	0.14	—	0.16	0.37	
Total	Premiums.	0.87	1.35	0.94	0.78	0.94	1.02	
	Damages	0.68	1.24	0.79	0.68	0.81	0.90	
	Costs of administr. and provisions	0.18	0.19	0.20	0.20	0.21	0.21	
	Reserve funds.	0.19	0.06	0.13	0.29	0.19	0.20	
	Initial premiums.	0.74	0.78	0.70	0.66	0.67	0.67	
	Additional premiums.	0.13	0.57	0.25	0.12	0.27	0.35	

and additional premiums (continued).

measured sums.												
1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
1.02	0.80	1.65	1.62	1.42	2.21	0.95	1.83	0.93	1.49	0.89	1.29	0.73
0.76	0.54	1.54	1.51	1.25	2.22	0.60	1.63	0.64	1.19	0.64	1.06	0.62
0.40	0.42	0.37	0.32	0.29	0.31	0.31	0.27	0.30	0.29	0.29	0.27	0.23
0.18	0.21	0.19	0.16	0.14	0.13	0.22	0.17	0.27	0.31	0.40	0.47	0.43
0.62	0.63	0.57	0.61	0.55	0.67	0.68	0.68	0.72	0.71	0.71	0.69	0.73
0.39	0.16	1.08	1.01	0.87	0.96	0.19	0.83	0.21	0.78	0.18	0.59	—
1.67	1.48	—	—	—	—	—	—	—	—	—	—	—
0.85	0.67	—	—	—	—	—	—	—	—	—	—	—
0.80	0.84	—	—	—	—	—	—	—	—	—	—	—
0.08	0.00	—	—	—	—	—	—	—	—	—	—	—
0.74	0.72	—	—	—	—	—	—	—	—	—	—	—
0.90	0.72	—	—	—	—	—	—	—	—	—	—	—
1.02	0.79	1.76	1.62	1.69	1.97	0.80	1.82	0.87	1.21	0.90	1.21	0.67
0.99	0.74	1.66	1.56	1.48	1.73	0.62	1.79	0.75	1.28	0.72	1.26	0.61
0.16	0.16	0.16	0.16	0.16	0.16	0.17	0.16	0.16	0.16	0.16	0.17	0.16
0.10	0.11	0.14	0.14	0.17	0.15	0.29	0.16	0.28	0.21	0.37	0.44	0.46
0.64	0.63	0.63	0.64	0.65	0.66	0.66	0.70	0.70	0.70	0.69	0.67	0.67
0.38	0.16	1.13	0.96	1.04	1.31	0.14	1.12	0.17	0.52	0.21	0.54	—
0.91	0.90	2.20	1.76	1.73	2.10	1.00	2.80	1.14	1.56	1.05	1.81	0.71
0.63	0.62	1.96	1.52	1.48	1.88	0.70	2.50	0.88	1.28	0.83	1.43	0.53
0.33	0.33	0.31	0.32	0.33	0.32	0.29	0.32	0.35	0.32	0.31	0.31	0.30
0.22	0.24	0.20	0.19	0.18	0.16	0.14	0.18	0.23	0.23	0.21	0.37	0.31
0.62	0.61	0.61	0.61	0.61	0.59	0.53	0.62	0.65	0.64	0.63	0.65	0.65
0.29	0.28	1.59	1.15	1.12	1.31	0.37	2.08	0.50	0.92	0.42	1.16	0.07
0.74	0.75	1.40	1.93	1.60	2.48	0.80	2.40	0.84	1.16	1.08	1.23	0.82
0.78	0.68	0.62	1.94	1.63	2.52	0.83	2.30	0.71	1.09	0.93	1.29	0.73
0.10	0.10	0.10	0.10	0.10	0.09	0.10	0.09	0.09	0.08	0.09	0.09	0.08
0.12	0.16	0.14	0.13	0.12	0.16	0.14	0.18	0.26	0.24	0.33	0.22	0.21
0.74	0.75	0.74	0.76	0.77	0.79	0.82	0.83	0.84	0.84	0.84	0.82	0.82
—	—	0.67	1.17	0.84	1.59	—	1.57	—	0.33	0.25	0.41	—
—	—	—	—	—	—	—	—	—	—	—	—	—
1.01	0.81	1.69	1.67	1.64	2.10	0.86	2.00	0.92	1.27	1.00	1.28	0.75
0.94	0.70	1.61	1.67	1.57	1.93	0.55	1.91	0.74	1.23	0.78	1.12	0.64
0.20	0.20	0.19	0.19	0.19	0.19	0.19	0.18	0.18	0.18	0.19	0.19	0.17
0.16	0.18	0.18	0.18	0.18	0.17	0.25	0.18	0.27	0.23	0.36	0.40	0.40
0.67	0.67	0.67	0.68	0.68	0.69	0.70	0.71	0.74	0.75	0.74	0.75	0.71
0.34	0.14	1.63	0.99	0.95	1.30	0.14	1.23	0.17	0.53	0.25	0.55	0.03

cent. in 1903, of 0.53 per cent. in 1904 and 1909, of 0.60 per cent. in 1911, of 0.21 per cent. in 1912, of 0.37 per cent. in 1913 and of 0.09 per cent. in 1914. Here also the figure representing *damages* has always been lower than that representing premiums. Damages figures as 0.67 per cent. in 1890 and as 0.59 per cent. in 1915. Their minimum, 0.49 per cent., occurred in 1904 and their maximum, 1.87 per cent., in 1910. *Costs of administration* were at their minimum, 0.23 per cent., in 1890 and at 0.29 per cent. in 1915, their maximum, 0.46 per cent., occurring in 1900, 1902 and 1905. As regards *reserve funds* the minimum payment to them, 0.05 per cent., was also made in the first year, 1890. A gradual increase had brought this payment in 1906 to 0.39 per cent. which figure occurred again in 1915.

Our data for the *Deutsche Hagelversicherungsgesellschaft für Gartenerien* comprise one additional element, the dividends. Premiums were 1.54 per cent. in 1881 and 1.92 per cent. in 1915. Their minimum, 1.52 per cent., which occurred in 1890 was sufficiently high, and their maximum, reached in 1908, was 2.62 per cent. In a fair number of years the premiums were equal to nearly 2 per cent. of the sums insured. The initial premiums almost always reached this level, except in 1908 and 1910, the only two years in which additional premiums were recorded. They were 0.78 per cent. and 0.19 per cent., respectively, that is to say less than the initial premiums which were 1.81 and 1.86 per cent. This company is therefore not far removed from the type of company which has fixed premiums.

The dividends noted for more than half the years considered are more or less restitutions, considerable in amount since their minimum, which occurred in 1902, was 0.18 per cent. of the insured sums, and their maximum, found in 1900, 0.63 per cent. This minimum and maximum were respectively equivalent to 11 and 40 per cent. of the amount of premiums received. Evidently this is another way of bringing the premiums to be paid as close as possible to the *damages* incurred. The latter figure as 0.84 per cent. in 1881 and as 0.49 per cent. in 1915, reaching their minimum, 0.43 per cent., in 1890 and 1895, and their maximum 2.28 per cent. in 1905, the only year in which damages exceeded premiums. The excess was 0.56 per cent. of the insured sums. *Costs of administration* were 0.56 per cent. in 1881 and 0.48 per cent. in 1915, their minimum, 0.41 per cent. occurring in 1913, and their maximum, 0.60 per cent., in 1895. Payments to *reserve funds* were high: 1.80 per cent. in 1881 and 1.61 per cent. in 1915. The minimum, 0.39 per cent., and the maximum, 4.10 per cent., in 1895, and during half the years considered these payments oscillated between $2\frac{1}{2}$ and 4 per cent. These figures are so high that none like them could be shown by any of the companies which are the subject of this study except the Bavarian Institute.

For the *Germania* company we have data only for the year 1890 and they have no interesting characteristics.

The *Hagelversicherungsbank*, stated to have existed since 1867, does not figure in our statistics until 1902. The figure representing premiums goes from 0.96 per cent., the minimum, in 1881 to 1.49 per cent., the maximum, in 1915. Initial premiums were invariably higher than additional

premiums, the differences between the two being the following : 0.64 per cent. in 1881, 0.62 per cent. in 1885, 0.46 per cent. in 1890, 0.25 per cent. in 1895, 0.46 per cent. in 1900, 0.09 per cent. in 1901 and 0.03 per cent. in 1902. *Damages* went from 0.61 per cent., their minimum, in 1881 to 1.02 per cent., their maximum, in 1902, and their amount has never equalled or exceeded that of the premiums. *Costs of administration* were 0.35 per cent. in 1881 and 0.55 per cent., their maximum, in 1902; their minimum, 0.23 per cent., occurring in 1890. Payments to *reserve funds* went from 0.14 per cent., their minimum, in 1881 to 0.35 per cent., their maximum, in 1902.

We have data for the *Hann. Braunsch. Hagelversicherungsgesellschaft* only for 1895, up to which date it followed the system of distributory premiums.

On the other hand we have complete data for the years from 1881 to 1915 for the *Leipziger Hagelversicherungsgesellschaft*. Premiums were 1.69 per cent. in 1881 and 0.73 per cent., their minimum, in 1915. Their maximum, 2.21 per cent., occurred in 1908. The amount of additional premiums exceeded that of initial premiums by 0.23 per cent. of the amount of the insured sums in 1881, by 0.03 per cent. in 1895, 0.01 per cent. in 1900, 0.05 per cent. in 1902, 0.51 per cent. in 1905, 0.40 per cent. in 1906, 0.32 per cent. in 1907, 0.29 per cent. in 1908, 0.15 per cent. in 1910 and 0.07 per cent. in 1912. The excess of initial over additional premiums was 0.70 per cent. in 1885, 0.38 per cent. in 1890, 0.03 per cent. in 1901, 0.23 per cent. in 1903, 0.47 per cent. in 1904, 0.49 per cent. in 1909, 0.51 per cent. in 1911, 0.53 per cent. in 1913 and 0.10 per cent. in 1914. The *damages* went from 1.58 per cent. in 1881 to 0.62 per cent. in 1915, reaching their minimum of 0.54 per cent. in 1904. and their maximum of 2.22 per cent. in 1908, the only year in which they exceeded premiums and that only by 0.01 per cent. of the amount of the insured sums. *Costs of administration* went from 0.34 per cent. in 1881 to 0.23 per cent. in 1915, reaching their minimum of 0.22 per cent. in 1895 and their maximum of 0.44 per cent. in 1900. Payments to *reserve funds*, were 0.18 per cent. in 1881 and 0.43 per cent. in 1915. The minimum, 0.07 per cent., was recorded in 1885, and the maximum, 0.47 per cent., in 1918.

Our data as to the *Magdeburgische Gesellschaft Patria* only cover the period from 1885 to 1904. Premiums passed from a minimum of 0.93 per cent occurring in 1885, to a maximum of 1.74 per cent., found in 1900, and were at 1.48 per cent. in 1904. No additional premiums were recorded in 1885 or 1890. Additional exceeded initial premiums by 0.50 per cent. in 1900, by 0.28 per cent. in 1901 and by 0.16 per cent. in 1903. The excess of initial over additional premiums was 0.22 per cent. in 1895 and 0.06 per cent. in 1902. Premiums of the two categories were equal to each other in 1904. *Damages* went from 0.51 per cent., their minimum, in 1885 up to 0.93 per cent., their maximum, in 1900 and were at 0.67 per cent. in 1904. They never equalled or exceeded premiums. *Costs of administration* increased continuously from 0.21 per cent. in 1885 to 0.84 per cent. in 1904. Payments to *reserve funds* were 0.06 per cent. of the insured sums in

1885 and reached a maximum of 0.17 per cent. In the last year considered, 1907, they were non-existent.

For the *Norddeutsche Hagelversicherungsgesellschaft* we have another complete series of data. The amount of premiums begins at 0.84 per cent. in 1881, reaches its minimum, 0.63 per cent., in 1895, and its maximum 1.97 per cent., in 1908, and ends at 0.67 per cent. in 1915. There were no additional premiums in 1895 or 1915. They exceeded initial premiums by 0.50 per cent. in 1905, by 0.32 per cent. in 1906, by 0.39 per cent. in 1907, by 0.65 per cent. in 1908 and by 0.42 per cent. in 1910. Initial exceeded additional premiums by 0.60 per cent. in 1881, by 0.28 per cent. in 1885, by 0.60 per cent. in 1890, by 0.49 per cent. in 1900, by 0.44 per cent. in 1901, by 0.23 per cent. in 1902, by 0.26 per cent. in 1903, by 0.47 per cent. in 1904, by 0.52 per cent. in 1909, by 0.53 per cent. in 1911, by 0.18 per cent. in 1912, by 0.48 per cent. in 1913 and by 0.13 per cent. in 1914. *Damages* were 0.64 per cent. in 1881 and 1.79 per cent., their maximum, in 1910, reaching their minimum, 0.61 per cent., in 1915. They exceeded premiums by 0.02 per cent. of the insured sums in 1895, 0.07 per cent. in 1912 and 0.05 per cent. in 1914. *Costs of administration* oscillated continually between 0.16 and 0.18 per cent., the minimum figure occurring much the most frequently. Payments to *reserve funds* were 0.11 per cent. in 1881, reached their minimum, 0.03 per cent., in 1885, and their maximum, 0.46 per cent., in 1915.

Our data as to the *Preussische Hagelversicherungsgesellschaft* cover a shorter period, that from 1890 to 1915. *Premiums* were at 1.12 per cent. in 1890, reached their maximum, 2.80 per cent., in 1910, and their minimum 0.71 per cent., in 1915. Additional exceeded initial premiums by 0.98 per cent. in 1905, 0.54 per cent. in 1906, 0.51 per cent. in 1907, 0.72 per cent. in 1908, 1.46 per cent. in 1910, 0.28 per cent. in 1912 and 0.51 per cent. in 1914. *Damages* were 0.82 per cent. in 1881, 1.96 per cent. in 1905 and little different in the three following years, reaching 2.50 per cent., their maximum, in 1910, and 0.53 per cent., their minimum, in 1915. They never equalled or exceeded premiums. *Costs of administration* oscillated between a minimum of 0.29 per cent., found in 1909, and a maximum of 0.35 per cent., reached in 1911. Starting in 1881 at 0.32 per cent., they were only 0.30 per cent. in 1915. Payments to *reserve funds* were at their minimum, 0.11 per cent., in 1881, at their maximum, 0.37 per cent., in 1914, and at 0.31 per cent. in 1915.

Complete data as to the *Schwedter Hagelversicherungsgesellschaft* extend from 1881 to 1915 and are missing only with regard to dividends which are merely stated to have existed. *Premiums* go from 0.78 per cent. in 1881 to 0.82 per cent. in 1915, their minimum, 0.72 per cent., being reached in 1895 and their maximum, 2.48 per cent., in 1908. In 1881, 1895, 1903, 1904, 1909, 1911 and 1915 no additional premiums were recorded. Additional exceeded initial premiums by 0.41 per cent. in 1906, by 0.07 per cent. in 1907, by 0.80 per cent. in 1908 and by 0.75 per cent. in 1910. Initial exceeded additional premiums by 0.22 per cent. in 1885, by 0.59 per cent. in 1890, by 0.56 per cent. in 1900, by 0.36 per cent. in 1901, by 0.53 per cent. in 1902, by 0.07 per cent. in 1905, by 0.51 per cent. in 1912, by 0.59 per cent.

in 1913 and by 0.41 per cent. in 1914. *Damages* were 0.61 per cent. in 1881, 0.55 per cent., their minimum, in 1895, 2.52 per cent., their maximum, in 1908, and 0.73 per cent. in 1915. They were exactly equal to premiums in 1885 and 1900; and exceeded them by 0.04 per cent. in 1890, 0.02 per cent. in 1901, 0.04 per cent. in 1902 and 1903, 0.01 per cent. in 1906, 0.03 per cent. in 1907, 0.04 per cent. in 1908, 0.03 per cent., in 1909, and 0.06 per cent. in 1914. The *costs of administration* were always very low, oscillating between a minimum of 0.07 per cent., reached in 1885, and a maximum of 0.10 per cent. which is recorded with some frequency. Payments to *reserve funds* were 0.39 per cent. in 1881, 0.06 per cent., their minimum, in 1885, 0.75 per cent., their maximum, in 1895, and 0.21 per cent. in 1915. These payments were most frequently between 0.10 and 0.20 per cent. of the insured sums.

Taken together, the percentages which the various items form of the amount of the insured sums lead to the following conclusion, in so far as mutual societies which follow a system of initial and additional premiums are concerned. When they are taken together the points on which they have sometimes seemed to deviate from this system are less apparent. Premiums were at 0.87 per cent. in 1881, at 2.10 per cent., their maximum, in 1908, and at their minimum, 0.75 per cent., in 1915. Initial premiums are fairly stable, oscillating only between 0.66 and 0.78 per cent. The variability of premiums affects only their additional part which varies from 0.03 to 1.63 per cent. This additional part exceeded the other by 0.96 per cent. in 1905, 0.31 per cent. in 1906, 0.26 per cent. in 1907, 0.60 per cent. in 1908 and 0.49 per cent. in 1910. In the other years initial exceeded additional premiums by 0.61 per cent. in 1881, 0.21 per cent. in 1885, 0.45 per cent. in 1890, 0.54 per cent. in 1895, 0.40 per cent. in 1900, 0.32 per cent. in 1901, 0.25 per cent. in 1902, 0.33 per cent. in 1903, 0.53 per cent. in 1904, 0.57 per cent. in 1909, 0.58 per cent. in 1911, 0.21 per cent. in 1912, 0.50 per cent. in 1913, 0.18 per cent. in 1914, and 0.68 per cent. in 1915. *Damages* were 0.68 per cent. in 1881, 1.93 per cent., their maximum, in 1908, and 0.64 per cent., their minimum, in 1915, and were equal to premiums only once, in 1906. Thus in order to arrive at the results of a system of insurance against hail, it is not unprofitable to glance at the whole after having ascertained what might be the defects of detail. A notable condition of equilibrium is discovered where *costs of administration* are concerned for they are constantly balanced in the mean between 0.17 and 0.21 per cent. of the insured sums, the minimum being recorded in 1915. Payments to *reserve funds* oscillate between 0.06 and 0.40 per cent.; the minimum occurs after 0.19 per cent. has been recorded and the maximum at the end of the period.

e) The societies which have distributory premiums are not numerous. After having numbered four they were reduced to three in 1895 when one of them was transformed to the type having additional and initial premiums. Those which still adhered to the other system seem to have succeeded in surviving, keeping costs of administration as low as possible and granting insurance at variable rates which were always as low as possible.

The *Greifswalder Hagelversicherungsgesellschaft* has had premiums which

e) *Institutions having*

Percentage of sums

		1881	1885	1890	1895	1900	1901	1902
Orellwälder Lebensversicherungs- gesellschaft	Premiums	0.96	2.22	0.89	0.43	0.52	0.52	0.47
	Damages	0.96	2.50	0.84	0.39	0.50	0.48	0.43
	Costs of administr. and provisions	0.02	0.02	0.03	0.03	0.02	0.01	0.01
	Reserve funds	0.71	0.45	0.64	0.89	1.09	1.21	1.25
Lann Bräunschw. Lebensversicherungs- gesellschaft	Premiums	1.32	1.25	1.30	Initial and additional premiums	—	—	—
	Damages	1.07	1.06	1.12		—	—	—
	Costs of administr. and provisions	0.06	0.19	0.17		—	—	—
	Reserve funds	—	0.14	0.18		—	—	—
Mecklenburgische Lebensversicherungs- gesellschaft	Premiums	1.30	1.86	1.00	0.66	0.77	0.81	0.88
	Damages	1.32	1.86	0.94	0.54	0.67	0.84	0.76
	Costs of administr. and provisions	0.03	0.04	0.08	0.06	0.07	0.08	0.07
	Reserve funds	0.27	0.33	0.39	0.54	0.59	0.68	0.71
Ostdeutscher Lebensversicherungs- verband	Premiums	—	—	—	0.71	0.73	0.84	1.35
	Damages	—	—	—	0.34	0.53	0.74	1.25
	Costs of administr. and provisions	—	—	—	0.25	0.17	0.16	0.13
	Reserve funds	—	—	—	—	0.08	0.08	0.11
Total	Premiums	1.17	1.74	1.12	0.62	0.69	0.79	0.97
	Damages	1.13	1.75	1.00	0.44	0.58	0.72	0.88
	Costs of administr. and provisions	0.04	0.09	0.11	0.11	0.09	0.09	0.08
	Reserve funds	0.26	0.30	0.35	0.48	0.53	0.58	0.59

distributory premiums

insured each year

1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
0.75	0.60	1.36	0.91	1.24	2.20	0.69	0.97	0.97	1.29	0.99	1.03	0.95
0.94	0.49	1.65	0.77	1.28	2.16	0.45	0.84	0.88	1.40	0.78	0.32	0.93
0.62	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02
1.03	1.06	0.72	0.78	0.64	0.60	0.84	0.89	0.88	0.77	0.96	0.69	0.67
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
0.78	0.77	2.32	1.11	2.14	2.04	0.59	1.31	0.68	1.24	0.85	1.02	0.82
0.72	0.74	2.58	1.28	2.30	2.04	1.35	1.36	0.55	1.14	0.65	0.90	0.73
0.05	0.06	0.06	0.06	0.06	0.06	0.07	0.05	0.05	0.05	0.05	0.05	0.04
0.77	0.84	0.09	0.75	0.55	0.45	0.68	0.63	0.75	0.79	0.93	1.01	0.91
0.68	0.51	1.28	1.55	1.18	1.42	0.72	1.73	1.37	1.61	1.35	1.33	0.91
0.56	0.34	1.17	1.45	1.07	1.34	0.63	1.69	1.27	1.67	1.43	1.51	0.78
0.14	0.14	0.11	0.10	0.08	0.08	0.08	0.07	0.07	0.08	0.09	0.09	0.07
0.18	0.23	0.27	0.23	0.24	0.25	0.27	0.27	0.34	0.41	0.41	0.33	0.42
0.74	0.64	1.72	1.22	1.55	1.86	0.66	1.34	1.00	1.37	1.03	1.11	0.89
0.73	0.54	1.86	1.23	1.61	1.83	0.82	1.32	0.90	1.38	0.90	1.19	0.81
0.07	0.08	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04
0.64	0.70	0.67	0.58	0.47	0.43	0.58	0.58	0.66	0.66	0.79	0.73	0.70

varied in amount from 0.96 per cent. in 1881 to 0.95 per cent. in 1915, reaching 2.43 per cent., their minimum, in 1895 and 2.22 per cent. their maximum, in 1885. *Damages* varied from 0.96 per cent. in 1881 to 0.93 per cent. in 1915, reaching their minimum, 0.52 per cent., in 1914, and their maximum, 2.50 per cent., in 1885. *Costs of administration* are reduced to their simplest expression for they oscillate only between 0.01 and 0.03 per cent. of the insured sums. Payments to *reserve funds* go from 0.71 per cent. in 1881 to 0.67 per cent. in 1915. Their minimum, 0.45 per cent., occurred in 1885 and their maximum, 12.5 per cent., in 1912. The figures representing premiums and damages are thus slightly higher, on the whole, than those supplied by the societies having initial and additional premiums. Costs of administration are at the same time much lower, and payments to reserves generally twice as high.

Under the year 1895 we have already noticed, among the societies having initial and additional premiums, the *Hannov. Braunsch. Hagelversicherungsgesellschaft*. It is found in this second category in the period from 1881 to 1891. Its *premiums* oscillate between 1.25 and 1.32 per cent.; *damages* between 1.06 and 1.12 per cent., its *costs of administration* between 0.06 and 0.19 per cent., and payments to *reserve funds* between 0.14 and 0.18 per cent. The relative lowness of this last item, as compared to its amount in other societies of the same kind, probably prevented this society from continuing to practise insurance according to this system, all the more so because its costs of administration seem to have been too high for a society of its kind. Even when it was only a society having distributory premiums its books showed results which brought it nearer the other system.

The *Mecklenburgische Hagelversicherungsgesellschaft* was uninterruptedly faithful from 1881 to 1915 to the system of distributory premiums. Its *premiums* were 1.30 per cent. in 1881 and 0.82 per cent. in 1915; their minimum, 0.59 per cent., occurred in 1909, and their maximum, 2.32 per cent., in 1905. *Damages* went from 1.32 per cent. in 1881 to 0.73 per cent. in 1915, reaching a minimum of 0.54 per cent. in 1895 and a maximum of 2.58 per cent. in 1905. *Costs of administration* oscillated between 0.03 per cent. in 1881 and 0.08 per cent. in 1890 and 1901, but were only 0.04 per cent. in 1915. Payments to *reserve funds* were at their minimum, 0.09 per cent., in 1905 and at 1.01 per cent. in 1914. It is seen that societies of this kind succeed, while their costs of administration are much less than those of the stock companies as a whole, in constituting relatively important reserve funds, and this is an achievement since the premiums received correspond when taken together with the damages incurred. Thus in the case of this society damages exceeded premiums by 0.02 per cent. in 1881, by 0.03 per cent. in 1901, by 0.26 per cent. in 1905, by 0.17 per cent. in 1906, by 0.16 per cent. in 1907, by 0.76 per cent. in 1909 and by 0.05 per cent. in 1910. On the other hand premiums exceeded damages by 0.06 per cent. in 1890, by 0.12 per cent. in 1895, by 0.10 per cent. in 1900, by 0.12 per cent. in 1902, by 0.06 per cent. in 1903, by 0.03 per cent. in 1904, by 0.13 per cent. in 1911, by 0.10 per cent. in 1912, by 0.20 per cent. in 1913, by 0.12 per cent. in 1914 and by 0.09 per cent. in 1915.

As to the *Ostdeutscher Hagelversicherungsverband* we have data for the period from 1895 to 1915. *Premiums* were at 0.71 per cent. in 1881 and at 0.91 per cent. in 1915. Their minimum, 0.51 per cent., occurred in 1904 and their maximum, 1.73 per cent., in 1910. *Damages* passed from 0.34 per cent., their minimum which occurred in 1881 and 1904, to 0.78 per cent. in 1915, reaching their maximum, 1.69 per cent., in 1910. Their excess over premiums was never more than slight: 0.06 per cent. in 1912, 0.08 per cent. in 1913 and 0.18 per cent. in 1914. On the other hand premiums exceeded damages by 0.37 per cent. in 1895, 0.20 per cent. in 1900, 0.10 per cent. in 1901 and 1902, 0.12 per cent. in 1903, 0.17 per cent. in 1904, 0.11 per cent. in 1905, 0.10 per cent. in 1906, 0.11 per cent. in 1907, 0.08 per cent. in 1908, 0.09 per cent. in 1909, 0.04 per cent. in 1910, 0.10 per cent. in 1911 and 0.13 per cent. in 1915. This excess generally represented the amount of the *costs of administration*, which were a little higher than in other societies of the same kind, oscillating between 0.07 and 0.25 per cent. Payments to *reserve funds* were small on the other hand, from 0.08 to 0.42 per cent. of the insured sums.

Taken together, this small group of societies has *premiums* which go from 0.62 to 1.86 per cent., *damages* between 0.44 and 1.86 per cent. *Damages* exceeded premiums by 0.01 per cent. in 1885, 0.14 per cent. in 1905, 0.01 per cent. in 1906, 0.06 per cent. in 1907, 0.16 per cent. in 1909, 0.01 per cent. in 1912 and 0.08 per cent. in 1914. Premiums exceeded damages by 0.04 per cent. in 1881, 0.12 per cent. in 1890, 0.18 per cent. in 1895, 0.11 per cent. in 1900, 0.07 per cent. in 1901, 0.09 per cent. in 1902, 0.01 per cent. in 1903, 0.10 per cent. in 1904, 0.03 per cent. in 1908, 0.02 per cent. in 1910, 0.10 per cent. in 1911, 0.13 per cent. in 1913, and 0.08 per cent. in 1915. On an average *costs of administration* went from 0.04 to 0.11 per cent. Payments to *reserve funds* were between 0.26 and 0.79 per cent.

f) As to the local unions insuring against hail we have data for the eight years from 1908 and 1915, but they only concern the premiums and the damages incurred in consequence of falls of hail. Since they concern a period which includes a considerable number of years in which falls were exceptionally frequent and important, to draw conclusions from them is somewhat hazardous. It is well however to preserve them with a view to further studies. For the moment the total number of figures supplied for all the unions implies that they are societies of a form which attains to comparatively encouraging results. Any rise in values which may be noted is only the natural effect of the lack of compensatory elements found in any society which is active only in a limited territory.

g) Under the letter g the data, expressed in absolute figures, will be found which were furnished by the German societies insuring against hail in 1915. The *Sächsischer Militär Hagelversicherungs Verein* and the *Wilstedter Kirchthmer Hagelschaden-Unterstützungs Verein* have not been included in them because the statistics gave no data relative to them.

f) Local unions insi

Names of Unions	1908		1909
	Pre- miums	Dam- ages	Pre- miums
Schleswig. Holstein Lauenburgisch Hagelversicherungsverein. . .	0.85	1.04	0.42
Hagelschädenversicherungsgesellschaft für das Oderbruch	0.75	1.55	0.80
Hagelschadenverein Südwestl. Holst.	0.40	0.39	0.10
Hagelversicherungsgesellschaft A. G. für das Fürstentum Ratzeburg	0.40	?	0.20
Grevesmühl. Hagelversich. Verein.	1.92	1.90	1.01
Nusser Hagelversicherungsges. a. G.	1.35	2.98	0.39
Dithmarsch. Hagelassecuranzverein	0.20	0.14	0.20
Angler Hagelschädenverein für das Herzogtum Schleswig	0.18	0.15	0.06
Oldenburg. Hagelversich. Gesell. a. G.	0.80	0.88	0.50
Nordschlesw. Hagelversicherungs. Verein	?	?	?
Gegenscitiger Hagelversich. Verein für das nordöstliche Holstein.	0.20	0.20	0.02
Hagelversicherungsgesellschaft f. d. Weichsel-Nogat-Delta. . . .	0.56	0.10	0.55
Heesling. Hagelsch. Unterst. Verein A. G.	?	?	?
Hagelschad. Vers. Ges. «Constantia».	0.89	0.73	—
Hagelschädenversicherungsgesellsch. «Neuharlingersiel».	0.15	0.17	0.15
Sächs. landw. Hagelvers. Verein Z. Radeb.	1.50	1.74	1.23
Hagelsch. Verein f. d. Holst. Elbmarsch	0.40	0.40	0.10
Sachs. Militär. Hagelversich. Verein	2.02	6.60	1.49
Hagelschädenversicherungsgesellschaft f. den Mittebrücken Schleswigs	?	?	?
Wilstejt. Kirchtimker. Hagelschäden-Unterstützungsverein . . .	?	?	?
Total . . .	1.06	1.12	0.59

against Hail.

Percentage of sums insured											
1910		1911		1912		1913		1914		1915	
Pre-mums	Da-mages	Pre-mums	Da-mages	Pre-mums	Da-mages	Pre-mums	Da-mages	Pre-mums	Da-mages	Pre-mums	Da-mages
0.40	0.10	0.80	0.75	0.82	0.90	0.42	0.24	0.40	0.14	0.41	0.06
0.80	1.40	0.71	0.07	0.80	0.31	0.80	0.13	0.80	0.78	0.80	0.35
0.10	0.01	0.10	—	0.30	0.28	0.70	0.14	0.10	0.14	0.12	0.16
0.20	0.02	0.20	0.01	0.20	0.05	0.50	0.53	0.30	0.06	1.00	0.98
0.70	—	0.50	0.34	1.07	1.13	0.77	0.30	0.75	0.32	0.95	1.44
0.60	0.50	0.65	0.49	0.40	0.20	1.11	0.94	0.49	0.15	0.61	0.52
0.20	0.30	0.20	0.00	0.20	0.06	0.20	0.03	0.20	0.39	0.20	0.12
0.02	0.01	0.01	0.02	0.05	0.03	0.25	0.25	0.04	0.02	0.08	0.08
1.30	1.94	0.60	0.42	0.87	0.48	0.60	0.30	0.70	0.60	0.51	0.23
?	?	?	?	0.13	0.17	0.13	0.03	0.13	0.12	0.12	0.08
0.02	0.02	—	0.01	0.14	0.15	0.16	0.17	0.03	0.04	0.12	0.13
0.56	0.32	0.55	0.26	0.54	0.40	0.53	0.09	0.54	0.39	0.53	0.16
1.00	1.50	0.50	0.07	0.50	0.16	0.50	0.33	0.50	0.20	0.50	0.09
—	0.10	0.40	0.13	0.19	0.03	0.20	0.03	0.30	0.23	0.10	0.03
0.30	0.25	0.10	0.04	0.15	0.11	—	—	0.23	0.29	0.10	0.05
0.75	0.46	1.00	0.74	1.00	0.85	1.10	0.91	1.00	0.89	1.00	0.84
0.10	0.00	0.10	0.04	0.10	0.00	0.10	0.06	0.10	0.00	0.10	0.14
1.33	0.27	—	—	1.00	0.25	1.20	0.68	1.03	0.75	?	?
0.08	?	0.05	0.04	0.07	0.00	0.20	0.16	0.32	0.31	0.15	0.09
?	?	?	?	0.50	?	0.50	1.67	?	?	?	?
0.47	0.44	0.37	0.20	0.65	0.66	0.52	0.26	0.48	0.31	0.56	0.62

Reports of German Societies Insuring against Hail in 1915.

Names of Societies	Sums insured		Premiums		Initial premiums		Additional premiums		Damages		Costs of administration, provisions, taxes		Reserves on January 1, 1915	
	marks	marks	marks	marks	marks	marks	marks	marks	marks	marks	marks	marks	marks	marks
STOCK COMPANIES.														
1. Berl. Hagelassurancengesellschaft (since 1832)		156,847,271	1,928,898	—	—	—	—	—	608,149	291,690	4,629,148			
2. Königsche Hagelversicherungsgesellschaft.		259,616,693	2,322,690	—	—	—	—	—	898,885	401,250	2,326,758			
3. Magdeburger Hagelversicherungsgesellschaft		290,449,020	3,442,246	—	—	—	—	—	1,310,867	632,691	2,407,367			
4. Union, Allgem. Deutsche Hagelversich.		276,742,099	2,875,192	—	—	—	—	—	761,955	423,636	5,361,228			
MUTUAL SOCIETIES.														
I. Public.														
Bayrische Landes Hagelversicherungsnstalt		311,184,400	4,486,685	—	—	—	—	—	3,173,472	373,528	18,389,061			
II. Private.														
a) territorial.														
1. System of initial and additional premiums.														
1. Borussia		126,601,230	1,409,964	817,513	472,051	1,122,892	308,953	374,761						
2. Ceres.		127,162,780	1,009,430	1,009,430	—	748,747	374,237	496,678						
3. Deutsche Hagel-Versich.-Ges. für Gärtn.		22,284,100	423,075	423,075	—	108,252	104,881	355,181						
4. Leipziger Versicherungs-Gesellschaft.		165,139,338	1,205,841	1,205,133	—	1,935,574	350,598	709,806						
5. Norddeutsche Hagel-Versich.-Ges.		1,230,429,990	8,192,479	8,192,479	—	7,466,544	1,939,259	5,635,870						

1. Greifswalder Hagel-Versich.-Ges.	142,736,500	1,351,278	—	—	1,328,575	27,743	955,075
2. Mecklenburger Hagel-Versich.-Ges.	164,952,100	1,336,281	—	—	1,200,545	65,571	1,501,487
3. Ostdeutscher Verband	102,389,726	934,331	—	—	793,147	72,160	431,799

h) local.

1. Schleswig-Holst. Lauenth. Hagel-Versich.-Verein . . .	39,101,426	159,417	—	—	33,720	10,000	400,000
2. Hagelschaden Vers.-Ges. f. d. Oderbruch	6,742,209	54,067	54,067	—	20,320	3,632	460,290
3. Hagelschaden-Verein i. südwestl. Holstein	2,233,936	26,808	—	—	35,136	546	—
4. Hagelversich.-Ges. A. G. f. d. Fürstentum Ratzeburg .	3,926,480	39,254	—	—	38,438	3,562	89,897
5. Grovesmühl. Hagel-Versich.-Verein	125,235,700	1,192,227	—	—	1,817,268	—	972,508
6. Hagelversich.-Ges. « Grüne Taube »	—	9,289	—	—	12,504	455	66,952
7. Nasser Hagel-Versich.-Ges. a. G.	4,658,729	31,810	—	—	24,879	2,251	88,751
8. Propsteter Hagelschaden-Verein	1,720,265	—	—	—	—	104	—
9. Dithmarscher Hagel-Assecuranz-Verein	12,425,028	24,850	—	—	14,958	2,730	97,211
10. Angler Hagelschaden-Verein f. d. Herzogtum Schleswig	31,769,297	25,483	—	—	25,150	2,457	—
11. Oidenburger Hagel-Vers.-Ges.	21,704,600	108,523	—	—	51,640	30,372	202,563
12. Nordschleswiger Hagel-Versich.-Verein	17,066,000	17,396	—	—	11,216	1,394	51,100
13. Gegenseitiger Hagelvers.-Verein f. d. nordöstl. Holstein	30,506,539	38,134	—	—	38,943	1,911	74,500
14. Hagel-Versich.-Ges. f. d. Weichsel-Nogat-Delta . . *	9,985,201	53,034	—	—	9,064	2,000	184,434
15. Hagel-Versich.-Verein f. Dortmund und Hönne . . .	3,129,000	6,294	—	—	1,624	904	184,688
16. Iiceslinger Hagelsch. Unterstütz. Verein	* 3,400,000	17,144	—	—	2,990	1,997	16,500
17. Hagelsch.-Versich.-Ges. Neuhaaringefiel	5,982,500	5,800	—	—	1,967	1,014	71,924
18. Hngelsch.-Versich.-Ges. Neuhaaringesfel	5,719,050	5,719	—	—	2,680	—	25,798
19. Sächsl. landw. Hagel-Vers.-Verein zu Radeberg . . .	4,628,463	46,285	—	—	39,564	8,214	77,754
20. Hagelschad. Verein f. d. Holst.-Elbmarsch	4,989,890	4,990	—	—	6,968	628	10,972
21. Privatunterstützungskasse f. d. Amtsbezirk Enger . .	* 170,700	1,707	—	—	—	62	37,98
22. Hagelsch.-Versich.-Verein i. d. Mittelsachsen Schleswigs	5,217,842	7,827	—	—	4,704	1,410	2,000

* Estimate.

Part II: Credit

SPAIN.

THE INSTITUTION OF AGRICULTURAL PLEDGES AND THE CREATION OF WARRANTS.

SOURCE:

REAL DECRETO DE 22 DE SEPTIEMBRE DE 1917, ESTABLECIENDO EL CRÉDITO MOBILIARIO AGRÍCOLO SOBRE LA PRENDA SIN DEPLAZAMIENTO Y CREANDO EL "WARRANT" (*Royal decree of 22 September 1917 instituting agricultural credit on chattels secured by goods pledged "in situ" and creating warrants*). *Gaceta de Madrid*, 25 September 1917.

§ I. INTRODUCTION.

As a complement to the decree of 15 July 1917 creating a Central Fund of Agricultural Credit (1) the Spanish government has lately promulgated another decree, dated 22 September 1917, which institutes in Spain agricultural credit on chattels, secured by goods pledged *in situ*, and creates warrants.

It should be noted in the first place that this law has modified what the civil code had established with regard to contracts for pledges. The code insisted that a pledge should be in the possession of the creditor or a third party, and did not allow crops or implements and machines, intended for cultivating a given property, to be considered as chattels for the purposes of such a contract.

But in order that a contract of this kind should yield good results in practice it was necessary that it should give a sufficient security for capital. The framer of the law has therefore judged it well that such contracts should have as binding and as effective a legal form as possible. In rural circles two chief objections were made to this principle: it was said that the costs of the contract would be increased and that operations of credit would lose their mobility. These objections have been met by fixing a much reduced tariff, both for paying a notary for his intervention and for registering the property.

(1) See the article in our issue for November 1917, pp. 37-48.

In order to encourage as much as possible the flow of capital towards business of this kind, and because capital is not attracted by contracts which must be cancelled in the law-courts if certain of their clauses are not performed, the decree which we are about to examine provides that when recourse to the law-courts is necessary the simplest and most rapid procedure will be followed, and that when a loan is not repaid the creditor may sell the pledge by the method peculiar to contracts of this kind and without the intervention of the law-courts.

The penal liability which a debtor who does not deliver his pledge may incur justifies the supposition that borrowers will not make that useless resistance which constitutes a crime.

The provisions as to contracts pledging goods *in situ* and the creation of the Central Fund will indubitably cause a useful development of agricultural credit. But these provisions do not by themselves suffice for the entire solution of this problem, for agricultural credit has, besides these forms of personal credit and credit on pledges, another form based on the security which may be given by harvested and stored crops.

To correspond to this last security a warrant has been created which may be pledged and endorsed and is an outcome of the decree we are studying.

This document will represent a real value and effective security, which will allow a farmer to raise money on the security of his harvested crops without being obliged to sell them so hastily that their price may be lowered. It is clear that the grantor of a loan in such a case should have, as regards the warrant, a certainty based on the declaration of the depositors of the crops that the latter are in a state of good preservation and really exist

The warrant is a security of which the effectiveness depends on the material and moral solvency of the depositor. In order that it may inspire confidence it should be precisely conditioned. To attain this end in accordance with the stipulations of the commercial code, which authorizes only general storehouses satisfying certain special conditions to issue warrants, the desired circulating facilities of the institutions would be diminished, and therefore the framer of the law has thought it well largely to extend the authority to issue warrants so that it will be hard to find places where they cannot be obtained. In this way every warrant will not perhaps be made an instrument of credit which can be realized in any part of Spain ; but it will, according to the framer of the law, be possible easily to contract loans wherever the moral and material solvency of the issuer of the warrant is known, and to extend their effectiveness by means of successive endorsements, so that a warrant will come to be easily discountable commercial paper.

We will now examine the chief provisions of the decree in question.

§ 2. AGRICULTURAL PLEDGES.

The decree of 20 September 1917 first lays down that agriculturists and owners of live stock, and the institutions they constitute, may formally pledge, as security for the loan they receive, plantations, growing fruit and other elements of the agricultural and stock-raising industry, while keeping these on their land. For the purposes of the decree farmers and live stock-farmers who derive a profit from an agricultural industry or a branch of stock-raising will be considered to be agriculturists and owners of live stock. Trees, growing fruits, machines, receptacles implements and tools intended for the working or the management of a given holding will be held to be chattels. Thus the decree modifies, in order to allow agricultural pledges, the provisions of the Spanish civil code which by article 334 determines that property of these descriptions constitute real estate.

In that he himself will become the keeper of the pledge the debtor will acquire the character of a depository with its inherent liabilities; for the purposes of the contract of pledge he will be considered as a third party.

The articles of property which we have cited as capable of being pledged, if already, owing to a mortgage on a holding or any other contract, they secure the fulfilment of another obligation, cannot be pledged unless the lender while recognizing the earlier charges explicitly accepts the security offered. If he does this, the fact should be noted in the contract of pledge which will clearly define the charges previously constituted.

Loans made on the security of pledges in the form described should be recorded in a legal document which will state : 1) the name, firm and address of the lender and the borrower and their age and calling ; 2) the amount of the loan and of the stipulated interest, the date at which either falls due, the declaration of the payment of both and of the sum indicated as the costs secured by the pledged property ; 3) the agricultural operation for which the lent sum is destined ; 4) the description of the property offered as security, of its condition and the circumstances which enable its recognition and identification and, in the case of property which can remain on the same real estate, of the holding on which it is to be found ; in every case, as in that of live stock, implements and other things connected with agriculture and stock farming, the place in which it is utilized ; 5) the name and description of the person in whose hands the pledged goods are if this person be not the pledger of the goods ; 6) the price at which these goods could be offered for auction if the obligation were not fulfilled ; 7) the fact of the remission of the lent capital which ought to be repaid within no more than eighteen months ; 8) the owner's consent to recourse being had, if the obligation is not fulfilled, to an alienation of the pledge by auction, and to the consequent penal obligations and liabilities entailing the necessity of keeping the pledge, if it remain in the borrower's power, at the disposal of the auctioneer ; 9) the declaration of the borrower, with regard to the liberty of the pledged goods, as to whether or not they are intended for the fulfilment of an obli-

gation; 10) the kind of contract entered into with the landowner, if the borrower is a lessee; for if he be a *métayer* he will be able to pledge only a part of his holding proportionate to the share of its produce to which he is entitled.

Property thus pledged should be insured on behalf of the borrower, and in the deed establishing the loan the risks of insurance should be stated and the amount of insurance and the insuring firm indicated.

The decree lays down that the insurance can in no case profit any mortgage creditor to the detriment of the creditor accepting the pledge.

The first copies of public deeds showing loans to have been made on agricultural pledges will be negotiable by endorsement.

The endorsee will, in right of the endorsed deed, acquire all rights correspondent to those of the endorser. The endorsement should contain: a) the name or firm and the address of the endorsee; b) a declaration of the endorser that his credit has been made good; c) the date and the endorser's signature, written in the presence of a notary to whom the endorser is known; if such endorser is not known the presence of two witnesses is necessary.

The registrars of property will have a special register for agricultural pledges, in which they must enter the contracts of pledge in question and the transmissions and annulments of such contracts, in order that these may take effect against a third party.

The registers of agricultural pledges will be public, and should be shown to all who desire knowledge of their contents. These persons must moreover receive at demand certificates of entries in the registers.

The decree provides that a debtor who retains pledged goods in his own hands may make use of them so long as he does not reduce their value. He will be obliged to do the work and incur the expense necessary to their preservation, repair and management. He is similarly obliged in the case of the harvest in regard to which he has the duties and liability incumbent on a depository. Before he may transport pledged goods from the place in which the agricultural or stock-farm is situated and where these goods were when the contract was drawn up, it will be necessary for him to advise the creditor, informing him of the place to which the goods are transported. There should be the same procedure in the case of produce transported to another place than that in which it was when the contract of pledge was made.

If the borrower make a bad use of the pledged property, or seriously damage it, the creditor may exact repayment of the loan or the immediate sale of the pledged property, without taking into account other liabilities which may eventuate.

If the borrowing depository of the pledge die, the creditor may demand that the deposit be immediately placed in the hands of a third party.

While the contract is in force the creditor may control the pledged goods and inspect their condition. If the debtor resist the exercise of this right which he is asked to allow by the medium of a notary, the obligation will fall due.

The debtor may sell all or part of the pledged goods if the creditor authorize and intervene in such sale, and the product of the sale will go to the creditor up to the amount of his credit. If the price agreed upon for this sale which the debtor makes be less than the total amount of the credit, the creditor will have a right of pre-emption of the goods in question, at the agreed price ; and his credit for the difference will subsist.

At any moment the debtor may repay the sum he has borrowed and the interest appurtenant to it to the creditor, and if he does so the deed establishing his obligation will be remitted to him. If the creditor refuse to receive the sum lent, or if the creditor, being an endorsee who has not exercised his right of entering his endorsement on the register of agricultural pledges, be not known, the debtor may remit the sum in question by means of the law, and the pledged goods will in this case remain free of the charge which had burdened them.

Finally, it is provided in the decree, as regards the contract of pledge, that if this contract be endorsed its owner may, at the time when the obligation falls due, receive the sum of his credit by entering into relations with the debtor and the pledged goods, while at the same time he keeps, as is natural, a subsidiary right to claim the payment of the debt from the endorsers. Action may be taken against the endorsers within thirty days of the sale or the adjudication of the pledge.

The fees of the notaries who authorize the registration of agricultural pledges and issue copies of these entries constitute a question of capital importance. The decree provides, as we have said, that these fees be fixed in accordance with the amount of the loan as follows :

	Fees — Pesetas
Loans up to 100 pesetas	1
from 100 to 200 pesetas	1.50
„ „ 200.01 to 300 „	2
„ „ 300.01 to 400 „	2.25
„ „ 400.01 to 500 „	2.50
„ „ 500.01 to 1,000 „	4
„ „ 1,000.01 to 2,000 „	5
„ „ 2,000.01 to 5,000 „	6

For copies of the entries after the first copy there will be a fixed fee of 1 peseta. Notaries will receive the same fees for each transaction, whether they are present when a signature is affixed to an endorsement or to identify the endorser and witnesses, whether they are required to take cognizance of the payment of a loan and annulment of a deed of pledge or of the modifications of the original contract.

We reproduce below the tariff of the fees which the registrars of property should receive for the process of registering an agricultural pledge.

	Loans up to 5000 pesetas — pesetas	Loans above 5000 and up to 50,000 pesetas — pesetas	Loans above 50,000 pesetas — pesetas
Presentment and examination			
of deed	0.75	1.50	2.25
Registration	0.50	1.00	1.50
Total or partial annulment .	0.50	1.00	1.50
Issue of certificates	0.50	1.00	1.50
Production of books.	0.25	0.50	0.75

§ 3. THE WARRANTS.

We will now briefly examine the provisions of the decree of 22 September 1917 as to the issue of warrants which, as we have already said, are connected with the circulation of agricultural credit based on harvested and stored crops.

The agricultural and industrial syndicates, the institutions which these may form when federated, the rural funds and every other institution which may eventually be authorized by the government, even if it have not a commercial basis conforming to the provisions of the commercial code, may undertake the transactions which are the particular business of general storing depots and grant credit to those who qualify for them, issuing deposit bills which will be negotiable and may be transferred by an endorsement or any other analagous title. Such paper will have the character and value determined by the aforesaid code for paper issued by the companies mentioned. It is understood that the deposits will derive a character as such from the institutions named, provided the latter guarantee their existence and particular circumstances, even if they are retained by the depositor or held and kept by a third party. These details should be established by the relevant deeds.

The deeds conferring the character of deposits received by the institutions named will, if ceded, effect the cession or the pledging of the deposited products. Deeds of this kind will therefore have three parts: the counterfoil which should remain with the depository institution; the deposit bill which attests the deposit and the transference of which implies a transference of property in the deposited products; and the warrant by means of which the deposited products can be pledged. If the deposit bill, which is a kind of receipt, does not have effect at the same time as the warrant, it will give the right to dispose of the deposited products only within the limits specified in the contract which the warrant guarantees. The remission of the warrant without the deposit bill will not transfer property in the deposited products, but will merely signify that these remain pledged. The remission of the two documents will be equivalent to an absolute and unlimited transference of property in the documents to which they refer.

Every institution authorized to preserve and keep the products and

merchandise entrusted to it, and to issue the nominative deposit bills which give these deposits their value as security for credit, should keep books in accordance with the rules of the commercial code. Even if the fact be not indicated in its by-laws and its foundation rules it will be liable for its business as a depository and consequently for the deposit bills which it issues in connection with such business. Products and merchandise which are, while deposited, subject to loss and deterioration by the action of time, may not constitute deposits for which these institutions may issue completely valid deposit bills, unless the depreciation in question be a mere loss of weight which can be calculated beforehand and does not prevent the utilization of the goods affected. The depositor will none the less be liable for losses which these products and merchandise may suffer, as for those which have purely natural causes.

The depositor can remit in kind or cash the part of the value of these products and merchandise which the loss in question represents. For the purposes of the guarantee new delivery will replace the lost products.

Products worth less than 500 pesetas cannot constitute deposits. The documents relative to them shall comprise: 1) the name or firm and address of the depositor and the depository; 2) the description of the deposited goods, their quality, quantity, weight, receptacles and dimensions being noted, with other data serving to identify them, in conformity with the rules established in commerce with regard to these products; 3) the state in which these goods are found and their approximate value; 4) a statement as to the stores in which they are deposited, the time for which they are deposited, the amount of storage costs, the time and place at which the document is issued; 5) the signatures of the depositor and the depository.

The goods forming a deposit should be insured, either by their owner directly or by the depository institution on his behalf, and in the contract the insured risks, the amount of insurance and the insuring company will be indicated.

Institutions thus acting as depositories may not receive deposits of goods which already secure a mortgage on the land to which they belong, entered in the Property Register, or which constitute a pledge entered in the Register of Agricultural Pledges, or which have been previously burdened in any way. If in spite of being thus burdened they constitute a deposit, the depository institutions will be liable jointly with the depositor for the sum figuring on the deposit bill, if such bill have been transferred and if the goods mentioned on it have been pledged.

Deposit bills can, like warrants, be ceded by means of an endorsement. In an endorsement of a warrant there will appear, beneath the signatures of the debtor and the creditor, the sum forming the object of the loan, the amount of the stipulated interest, the date at which the loan falls due which date must be within the term of deposit, and the place at which it has been agreed that payment will be made.

Deeds of pledge will follow the same rules as deposit bills. On the latter as on a warrant the registration of the transaction in the books of

the depository institution and on the counterfoil of the contract will be noted : otherwise pledgings will be ineffective.

A creditor may transfer his credit by endorsing a warrant. In endorsements of deposit bills and warrants the name or firm and the address of the endorsee, the endorser's declaration as to his indemnification, the date and the signature of the endorser should be indicated.

The depository institution may not contract a loan secured by goods of which it is depository. The holder of a warrant will have the right, when the guaranteed obligation falls due, to exact from the depository company or institution the sale of the goods entered on it, and to exact that the amount of his credit be remitted to him after deduction of costs of storage, keeping and sale.

Any remainder of the price the goods fetch will remain with the depository institution at the disposal of the holder of the deposit bill. The sale will be made in the form established by the Commercial Code ; it will be announced at least ten days in advance at the place where the stores containing the goods in question are situated and in a local newspaper. The notice will indicate what are the place, day and hour of the auction, the kind of auction proposed, the goods which will be sold and the stores whence they emanate.

When a warrant has been endorsed and an obligation falls due, its holder may render the credit effective by taking action against the deposited goods. Any endorser may, even unrequested, render the amount of the credit effective by withdrawing the warrant and substituting himself for the creditor as regards the rights the latter has over the debtor and for previous endorsers as regards their rights. An endorser who has rendered credit effective by demanding a judgement will have a right equivalent to subrogation.

If the produce of a sale of goods does not suffice to cover the amount of the credit, after earlier costs have been deducted, the holder of the warrant can take combined action for recovery of his loss against the depositor and any earlier endorsers, on condition, where the latter are concerned, that the depository company or institution has notified them that the auction is going to take place, at the instance of the aforesaid holder of the warrant and by a registered and receipted letter. This action will not be allowed thirty days after the date on which the creditor has received the liquid sum arising out of the sale of the goods in question.

At all times, even if the term of deposit have not elapsed, the person holding the deposit bill relative to the deposited goods will have, if he desire and if he remit the warrant, the right to have the deposited goods remitted to him, on payment of the interest and commission usually charged in the case of banking operations liquidated before maturity.

The holder of the deposit bill may, if the goods figuring on it have been pledged, pay before the loan falls due the amount of the sum lent. If the creditor do not accept payment the holder of the deposit bill can remit the sum entered as a debt to the depository institution. In this case the institution concerned will remit the deposited goods to the holder of the depo-

sit bill, and the sum remitted will remain at the disposal of the holder of the warrant.

The owners of the deposit bills will have, together with the holders of the corresponding warrants, the right to demand that the deposit be divided into a certain number of parts or fractions, and that the corresponding deposit bills be remitted for each of these parts.

Institutions which are depositories of agricultural products may not store on the same premises or on contiguous premises goods capable of depreciating each other. The stores of which these institutions make use should be adapted to the best possible preservation of the deposited goods. Holders of deposit or guarantee bills may examine, on the aforesaid premises, the goods figuring on these documents, and may take samples of such goods if their quality permit. These institutions may not undertake the purchase and sale of products analogous to those deposited with them. The government may at any time cause these companies and institutions, authorized to issue deposit bills, to be inspected, thus discovering whether they work according to the provisions of the law and in the conditions permitted by the special authorization.

The depository institutions, to which the decree we are examining refers, may also undertake the following business ;

1) the cleansing, preparation, classification, collection, distribution and packing of products, and analogous business ; 2) the establishment of exchanges and the publication of price quotations.

Thus when there is question of merchandise for which commercial practice has fixed determined categories, these institutions may collect in their receptacles, silos or other fit plant the merchandise of different depositors which belongs to one class, if this procedure be specified in the relevant contracts.

* * *

It is not easy to foresee for the present the results which the provisions we have examined will yield in practice. If however we judge by the favour with which the rural element in Spanish society has received this decree, a favour reflected in the appreciations of the agricultural press, these results cannot but be satisfactory. Certainly this decree does not pretend, any more than that of 15 July 1917, to be final. But it can be taken to be an attempt to adapt to the special agricultural economic conditions of Spain systems long since adopted in other countries in which they have had good results in profitably extending agricultural credit. Considered even from this modest point-of view, this tentative legislation is very important to the solution of so complex and so grave a problem in a country which is, like Spain, eminently agricultural.

Part IV: Agricultural Economy in General

ARGENTINE REPUBLIC.

RURAL PROPERTY AND THE PROBLEM OF COLONIZATION.

OFFICIAL SOURCES :

- RESCISIÓN DE CONTRATOS DE ARRENDAMIENTO Y CADUCIDAD DE VENTAS DE TIERRAS FISCALES (*Rescinding of Contracts of Lease and Annulment of Sales of State Lands*). Decree of 21 April 1917. *Boletín Oficial de la República Argentina*, 25th year, No. 6,978. Buenos Ayres, 1 May 1917. *
- RESCISIÓN DE CONTRATOS DE ARRENDAMIENTO DE TIERRAS FISCALES EN SANTA CRUZ E INICIACIÓN DE ACCIONES CRIMINALES (*Rescinding of Contracts granting Leases of the State Lands of Santa Cruz and Penal Actions taken*). Decree of 14 June 1917. *Boletín Oficial de la República Argentina*, 25th year, No. 724, Buenos Ayres, 26 June 1917.
- ESTADÍSTICA AGRÍCOLA 1915-1916. Dirección General de Estadística y Economía Rural. Ministerio de Agricultura de la República Argentina (*Agricultural Statistics 1915-1916. General Direction of Statistics and Rural Economy. Ministry of Agriculture of the Argentine Republic*). Buenos Ayres, 1917.

OTHER SOURCES :

- RIVAROLA (Mario) : El régimen jurídico de la tierra pública (*The Jurisdictional System which relates to Public Lands*) *Revista Argentina de Ciencias Políticas*, Nos. 62, 63, 64, 67. Buenos Ayres, 1915-1916.
- LA NACIÓN, Buenos Ayres, 1916, 1917.

The solution of the problem of the division of lands in the Argentine Republic has become more than ever grave and urgent. The privileged geographical position of this country, its climate which is favourable to the most varied crops and its abundant watercourses give it such sources of wealth that, were the value of these realized, very superior results to those which have hitherto been attained might be secured within a few years. In recent years the cultivated area in Buenos Ayres, Santa Fé, Córdoba, Entre Ríos, Mendoza and Tucumán has been largely extended. But little has been done in the other provinces which would be much more productive if they did not lack labour and capital. In Santiago del Estero, for example, there are great expanses of land on which sugar-cane, cotton, lucerne grass and maize might be more intensively cultivated. In Jujuy sugar-cane is grown to a considerable extent but agricultural production in

general is weak. Only part of the lands of the province of Salta are planted with sugar-cane, vines and tobacco. The picturesque country of Misiones which might, since it is perhaps the most fertile in the whole republic, have a very high yield, is almost solely characterized by its production of the *maté* herb. Uraco and Formosa are known chiefly for their rich pasture-lands. The Central Pampas, which has an area of about a million hectares of which the abundant productivity has been proved, still includes very extensive properties which cannot be more profitably cultivated because they are not divided. In the Andes, Patagonia, also a fertile country, is largely a desert and, although something has been done of recent years, still waits for the value of its lands to be realized by reasoned and profitable colonisation.

In these countries, which are favoured less than others by climate, economical and rapid means of communication, the neighbourhood of markets and other advantages, colonization is more difficult than in Buenos Ayres, Santa Fé, Córdoba, Entre Ríos, Mendoza and Tucumán. It is more difficult and at the same time more urgent, in view of the sad conditions in which, in spite of the soil's fertility, agriculturists find themselves. Some uninhabited districts should be populated with farmers who in going to them will know that they are not travelling to a desert and an uncertain future.

The pressing need is therefore for an energetic colonization which will encourage above all the division of property.

§ I. SALE OF RURAL PROPERTIES AND TENDENCY TO SUBDIVIDE THEM.

An index to the present state of rural landownership in Argentina is found in the movement of the alienations of land which have taken place in recent years.

We give below a table showing for the five years from 1911 to 1915 the total number of sales of rural properties, the value of the properties sold, and the mortgages burdening Argentine rural property.

TABLE I. — *Sales of Rural Properties and Mortgages constituted.*

Year	Sales		Mortgages	
	Area — hectares	Value — pesos m/n	Area — hectares	Value — pesos m/n
1911	11,149,253	396,837,383	8,919,758	281,137,532
1912	8,559,248	372,295,585	10,515,712	348,573,331
1913	6,636,237	298,932,633	7,832,635	285,958,857
1914	5,672,510	232,756,195	8,107,519	275,831,812
1915	5,880,654	217,921,627	5,529,357	142,902,445
1911-1915 . .	37,897,902	1,518,743,423	40,904,981	1,334,403,977

These figures show that the area sold diminished in the first three and remained almost stationary in the last two years of the period considered. Mortgages did not increase in this period. They rather diminished than otherwise in the latter years, which fact may indicate an improvement in general economic conditions, doubtless due in part to the recent development of agricultural co-operation in Argentina.

It is therefore important to know what was the movement of these sales and mortgages in the different provinces, given the diversity of the economic conditions prevailing in each of them.

TABLE II. — *Sales and Mortgages of Rural Property.*

Provinces and territories —	Quinquennial period 1911-1915		Quinquennial period 1911-1915	
	Area of lands sold	Value of lands sold	Area of lands mortgaged	Value of lands mortgaged
	hectares	pesos m/n	hectares	pesos m/n
Buenos-Ayres .	2,930,707	433,462,935	7,212,126	501,411,099
Santa Fé . . .	3,394,206	252,662,838	5,624,632	177,634,405
Córdoba. . . .	3,408,912	244,162,473	4,740,872	230,420,457
Entre Ríos . .	975,312	66,524,501	1,355,641	40,808,561
Corrientes . . .	124,350	5,441,284	136,711	3,884,601
Tucumán . . .	541,119	19,313,600	562,380	21,678,305
Mendoza . . .	6,665,713	154,514,921	4,465,748	104,864,504
San Juan . . .	358,266	10,962,561	155,821	6,024,579
San Luis . . .	1,371,721	48,957,059	1,852,800	40,820,794
Santiago del Es- tero	2,369,897	32,848,613	2,185,631	27,037,443
La Rioja . . .	602,075	2,391,326	361,922	1,626,648
Salta	1,874,108	32,146,194	1,673,333	24,847,938
Jujuy.	823,200	20,704,727	488,645	14,620,308
Catamarca . .	642,677	1,501,933	162,506	576,975
Central Pampas.	2,319,584	74,753,846	2,875,931	63,034,705
Río Negro . . .	3,078,654	48,575,625	2,964,687	33,115,223
Neuquén. . . .	609,739	5,901,264	643,076	4,267,487
Chaco	1,808,830	26,898,704	1,361,783	22,765,703
Misiones. . . .	622,771	5,155,736	742,503	3,480,599
Formosa. . . .	364,847	1,570,629	209,677	1,481,679
Chubut	1,282,543	8,337,517	558,428	3,487,653
Santa Cruz . .	1,825,770	18,461,700	670,128	6,524,311
Tierra del Fuego	522,901	3,403,437	—	—
Los Andes. . .	—	—	—	—
Total.	37,897,902	1,518,743,423	40,904,981	1,334,403,977

From this table it appears that the provinces in which there were most sales of rural properties were Mendoza, Córdoba, Santa Fé, Río Negro, Buenos Ayres, Santiago del Estero, Central Pampas, Santa Cruz, Chaco and Chubut. If we consider the sales effected in the previous five years, that is from 1906 to 1910, we find, taking them together, a diminution of the area sold. In this period 10,738,381 hectares were sold in the province of Mendoza, 6,447,996 hectares in that of Córdoba, 4,918,691 hectares in that of Buenos Ayres, 4,257,555 hectares in that of Santiago del Estero, and 3,754,117 hectares in that of Central Pampas; and therefore there was a marked diminution as compared with the period from 1911 to 1915. This diminution was not counterbalanced by the slight increases in some territories and provinces, as in Río Negro, Chaco, Santa Fé and Catamarca; and thus while from 1906 to 1910 the total area sold was 47,884,030 hectares, in the following five years it was 37,897,902 hectares, giving a difference of at least some 10,000,000 hectares. It should however be noted that while the value of the 47,885,030 hectares sold from 1906 to 1910 reached 1,222,319,912 pesos m/n, that of the 37,897,902 hectares sold in the later quinquennial period was 1,518,743,423 pesos m/n. Thus altogether, in spite of the fact that the total area sold diminished by 20.8 per cent., the value of the rural properties sold increased by 24.2 per cent. This is confirmed by the course of mortgages which reached in the five years from 1906 to 1910 the total value of 751,974,633 pesos and burdened 34,368,281 hectares; and which from 1911 to 1915 reached the amount of 1,334,413,999 pesos and burdened 41,004,871 hectares.

This increase in the individual value of lands may be partly attributed to the speculation which was largely practised in Argentina, but it is also an outcome of other causes which have raised the actual value of the soil, such as the development of systems of irrigation, the extension of railways, the fact that capital has become more available for colonists by the extension of credit, and finally the tendency to subdivide rural property which has become manifest of late years. We would like to study this subdivision at length were the available statistical data regarding it more abundant.

The few data bearing on the subject which we have been able to bring together refer to the provinces of Buenos Ayres, Santa Fé, Mendoza and Entre Ríos. For the four first of these they extend only to 1914, as appears in Tables III and IV, but for the province of Entre Ríos we have data for 1915 which show that in that year there were 14,475 properties of an area of from 10 to 200 hectares, 4,774 of an area of from 300 to 500 hectares, 119 of 10,000 hectares, and 71 which were more extensive.

TABLE III. — *Division of Rural Property.*

Area of properties				Number of properties					
				Buenos Ayres			Córdoba		
				—	1911	Difference %	1914	1911	Difference %
from 10 to	25	hectares		17,464	14,001	+ 24.7	8,025	5,671	+ 41.5
» 26 »	50	»		15,016	14,191	+ 5.8	7,580	5,045	+ 50.2
» 51 »	100	»		10,117	9,248	+ 9.4	7,556	5,280	+ 43.1
» 101 »	200	»		7,483	7,466	+ 0.2	7,493	5,732	+ 30.7
» 201 »	300	»		3,167	3,850	— 17.7	3,239	2,658	+ 23.4
» 301 »	650	»		5,267	4,940	+ 6.6	3,987	3,870	+ 3.0
» 651 »	1,250	»		3,297	3,256	+ 1.3	1,760	1,685	+ 4.5
» 1251 »	2,500	»		2,382	2,530	— 5.8	975	992	— 1.7
» 2501 »	5,000	»		1,627	1,649	— 1.3	524	619	— 15.3
» 5001 »	10,000	»		857	682	+ 25.7	221	268	— 17.5
above 10,000		»		368	306	+ 20.3	122	147	— 17.0
Total . . .				67,045	62,119	+ 7.9	42,482	31,967	+ 29.8

TABLE IV. — *Division of Rural Property.*

Area of properties				Number of properties					
				Mendoza			Santa Fe		
				1914	1911	Difference %	1914	1911	Difference %
from 1 to	4	hectares		6,722	5,093	+ 32.0	—	—	—
» 5 »	9	»		3,229	2,224	+ 45.2	—	—	—
» 10 »	25	»		3,339	2,198	+ 51.9	7,803	6,876	+ 13.5
» 26 »	50	»		1,407	938	+ 50.0	7,592	6,830	+ 11.2
» 51 »	100	»		1,061	632	+ 67.9	7,918	7,276	+ 8.8
» 101 »	200	»		680	453	+ 50.1	8,121	7,875	+ 3.1
» 201 »	300	»		279	168	+ 66.1	3,144	3,020	+ 4.1
» 301 »	650	»		363	309	+ 17.5	2,397	2,545	— 5.8
» 651 »	1,250	»		202	158	+ 27.8	1,202	1,263	— 4.8
» 1251 »	2,500	»		154	162	— 4.9	773	768	+ 0.6
» 2501 »	5,000	»		113	115	— 1.7	561	566	— 0.9
» 5001 »	10,000	»		80	50	+ 60.0	198	205	— 3.4
above 10,000		»		238	137	+ 73.7	132	136	— 2.9
Total . . .				17,867	12,647	+ 41.3	39,841	37,360	+ 6.6

As appears from these data, not only was the number of small properties larger in 1914 than in 1911 — in Mendoza the number of rural properties between 50 and 100 hectares in extent increased by 67 per cent. — but a tendency showed itself to subdivide small areas, as appears from the figures referring to properties of an area between 4 and 300 hectares.

§ 2. THE LAND LAW AND GOVERNMENT INTERVENTION FOR ITS RIGOROUS APPLICATION.

In spite of this tendency towards the subdivision of rural property the problem of colonization has not yet been solved, for the greater part of the land is still in the hands of a small number of persons who are enormous landowners either in consequence of political events or as the effect of greedy speculation. The Argentine Republic has moreover never followed a true colonizing policy, and shortsighted action has often been taken, to the detriment of the people as a whole, in order to favour private interests. In the opinion of some jurists of the country itself the land laws are too complex and lack precision, and can even be turned to their own uses in given cases by speculators.

It is not long since the General Direction of State Lands in Argentina made a careful examination of property titles, and found that 1,740,000 hectares had been sold and let in large areas in contravention of the provisions of the land law No. 4,167.

In article 2 of this law it is forbidden that any individual or body corporate take on lease more than 20,000 hectares and in article 9 that he buy more than 10,000 hectares. Leaseholders are obliged to manage their leaseholds personally; and within two years from the time the contract first has force to keep live stock of their own on them, in conformity with clause 6 of article 39 of this law which rules that this live stock pastured on every league must be worth at least 2,000 pesos.

The law also lays down that a contract of lease is untransferable; and, by clause 5 of article 39 that the right to buy at the expiry of a lease is transferable only as an inheritance. Fraud practised to evade the law and to the prejudice of the laws of the State renders a transference, whether by sale or otherwise, null and void; and by the same clause 5 a contract of lease can be annulled at any moment if it be proved that it has been transferred from one individual to another when it has been drawn up by the intervention of a third party.

This law allows grants and sales of land which contravene the provisions of the law and of the executive power to be declared void. In such case improvements and liquid capital go to profit the State. It is on the basis of this article of the law that the executive promulgated two decrees, respectively on 21 April and 4 June 1917, because legal provisions were held to have been violated by the concessionaries and buyers of State lands in the territory of Santa Cruz, and because such lands should therefore, by article 4 of the national constitution, return to the jurisdiction of the executive power and be subsequently conceded in accordance with legal provisions. The first of these decrees concerns an area of 725,568 hectares within which four concessions had been made, respectively of 255,568, 200,000, 75,000 and 4,167 hectares. The second decree refers to an area of 1,067,062 hectares within which 1,015,000 hectares were conceded or sold, divided into the following concessions: 1) 190,569 hectares; 2) 50,561 hectares; 3) 44,644

hectares ; 4) 175,543 hectares ; 4) 119,215 hectares ; 6) 124,820 hectares , 7) 141,610 hectares ; 8) 212,500 hectares ; and 9) 35,000 hectares.

These two decrees have much the same provisions. They declare the contracts leasing these lands void, except where conditions as to population and other conditions of the contract are recognized to have been fulfilled, and they order the restitution of titles to the property. The sales made are declared void and entries were made on the property register accordingly. The Ministry of Agriculture proceeded to take immediate seisin of the lands in question and the improvements made on them, and the pertinent penal actions, to be taken in conformity with articles 64 and 65 of the federal law of 14 September 1863, were authorized.

§ 3. JUSTIFICATION OF THE MEASURES ADOPTED BY THE EXECUTIVE POWER.

We should notice that a portion of the lands which should, as an effect of the decrees we have examined, revert to the State domain were sold or let under the previous government. Such sale does not in itself give the State the power to preserve a right of indefinite duration in the lands sold or let. Thus the purchaser becomes, sooner or later, master of that which the State, as a legal person, has transferred to him.

A question therefore arose as to whether the existing government had power to annul, by an act of authority, sales made by the previous government and concluded by the fulfilment of the stipulated terms and the transference of full possession to the purchaser. This question was decided in the affirmative in accordance with the opinion not only of politicians but also of some economists in the country. These latter affirm that the State's sales of lands differ from sales by individuals in which the seller gives up all his rights in the property sold, so that normally no remaining tie connects him with such property. The State, they say, as the agent and the legal representative of the public, cannot entirely rid itself of its rights in the real estate which it delivers to an individual who is part of such public, if this delivery is made with the object of realizing the value of the real estate in question in order to contribute to the growth of national wealth. The State should always keep the right to cause the terms on which it has consented to cede a property, of which the value should gradually increase, to be observed. Thus even if the State has delivered the relevant property title to the purchaser, whose possession has thus been completed, it can still, if the terms of law No. 4,167 have not been observed, annul contracts drawn up by a previous government. It is indeed true that while a government retains its integrity through time, the persons constituting and representing it vary ; and if officials of today judge that their predecessors of yesterday have compromised the position of the Treasury illegally, they should apply a remedy for the sake of public advantage and security.

If this be granted, the two decrees of which we have spoken are fully justified. If on the one hand they be deemed to be severe, on the other it

has been recognized that they may effectively contribute to the solution of the grave problem of the parcelling of landed properties in that they will render a vast area available for sale in small lots.

* * *

It is indubitable that with regard to the problem of the colonization of Argentina some progress has been made in recent years. If the tendency to parcel lands continue its constant progress, if the government ensure that the terms of the land law be observed in letting and selling contracts, and if severe action be taken against speculators, the problem will certainly be on the road to solution.

But if the fundamental aspect of the problem of colonization is found in the parcelling of land, there are also other questions which must be answered and other conditions which must be encouraged before Argentina, which commands such a wealth of energy and resources, can become one of the greatest of agricultural countries. Contracts of lease and sale must be transformed so that a colonist may be attached to the land and not turned away from agricultural labour by his experiences or the illusive hope of realizing larger gains in another industry. Above all agricultural credit, co-operation and mutuality must be fostered in their various forms, so that a large amount of capital be available for the land as for other objects ; and steps must be taken to populate the country by the promulgation of suitable laws on emigration and immigration which will both encourage the inflow of foreign colonists and prevent the exodus of labourers from the republic. Only thus will Argentina be able to occupy her true place in the economy of nations.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL IN VARIOUS COUNTRIES.

CANADA.

FARM COLONIES FOR DISCHARGED SOLDIERS IN ONTARIO. — *Canadian Finance*
Vol IX, No 4, Winnipeg, 20 February 1918

The government of Ontario has evolved a scheme for placing large numbers of ex-Service men on the fertile and as yet largely undeveloped lands in Northern Ontario. A portion of this province, commonly known as the Clay Belt, extends west from the boundary between Ontario and Quebec for a distance of about 400 miles. This belt of land varies in depth from twenty-five to more than a hundred miles. The soil is a rich clay loam, free from rock and admirably adapted to mixed farming. The country is fairly well timbered and is well watered by numerous lakes and streams. The forests abound in game and fish are plentiful in the lakes and streams.

Returned soldiers who wish to take advantage of the scheme should communicate with Deputy Minister of Lands and Forests in Ontario. Their applications will be examined by a committee on which the Department of Lands, Forests and Mines, the Department of Agriculture, the Military Hospitals Commission, the Great War Veterans' Association, the Soldiers' Aid Commission, the Canadian Patriotic Fund Committee and the Vocational Training School are represented. Men who pass the medical examination and whose applications the examining committee approve are sent to the agricultural training depot, established on the government experimental farm at Monteith, which is on the Temiskaming and Northern Ontario Railroad, 444 miles north of Toronto and 35 miles south of Cochrane. Comfortable temporary quarters have been erected on this farm, and a permanent school, which will accommodate nearly one hundred men, has also been built. Competent instructors will give the men every opportunity to become versed in all branches of farming, and they will also acquire experience in clearing land, logging, and all kinds of bush work.

From time to time, as they are considered sufficiently proficient to succeed as settlers, they will be transferred to the farm colony established at Kapuskasing, 70 miles west of Cochrane, or one of the colonies which will be established later.

The large area set aside for them in the neighbourhood of Kapuskasing lies along the line of the National Transcontinental Railroad and in the heart of the best clay-belt country. Already twenty houses, forming a village, have been built for some of the married men engaged in the preliminary clearing and their families, as well as a dormitory and cook-house for fifty men. A government store, a superintendent's residence and office and other necessary buildings are also in existence. Roads will be made to serve the needs of the settlement, and school accommodation and a hall

to serve as a public meeting-place in each community will be provided. A central colony farm will be established in each community, and on it suitable barns will be erected and a stock of horses, cattle and sheep will always be kept. There will always be on it a number of horses and a complete outfit of the heavier farm implements, such as binders, mowers and threshing machines, and these will be available for settlers who will thus be able to avoid a large expenditure on stock and implements in their first year or two of settlement.

One hundred acres, of which ten have been cleared, will be allowed to each settler without charge. The government proposes to make, when necessary, a loan which will not exceed \$ 500 to pay for housing, machinery, tools and live stock and to help a settler generally to improve his holding. Any such advance, whether in the form of stock, buildings or otherwise, will bear interest at the rate of 6 per cent. per annum and will be repayable within twenty years. No payment, whether of principal or interest, will be required within three years of the date of the advance. A lien on the settler's holding and chattels will be taken as security.

At the expiry of five years from the date at which the ex-soldier actively participates in the scheme he will, if he have performed certain obligations as a settler, be entitled to receive a patent from the crown.

Transportation of the men from Toronto to Monteith and to the farm colonies is provided by the government, and provision will also be made for transporting their families and household effects when their homes are ready to be occupied.

While the men are being trained and while they are working in parties to make the ten-acre clearings on each lot, such of them as are single are paid at the rate \$ 2.50 for a working day. The rate of pay for married men or men with dependents is \$ 1.10 a day, with an additional grant of \$20 a month in lieu of the separation allowance paid by the Dominion government to the wives of men on active service, an allowance of \$6 a month for every child under the age of sixteen, and an allowance of \$5 a month for the wife in lieu of that received by soldiers' wives from the Canadian Patriotic Fund. The total maximum of these monthly grants and allowances is fixed at \$30, and the minimum amount of pay and allowances to be received by any married man is \$65 a month.

GREAT BRITAIN AND IRELAND.

1. THE IRISH LAND COMMISSION IN 1916-1917. — *Report of the Irish Land Commissioners for the Period from 1st April 1916 to 31st March 1917.* — Dublin, His Majesty's Stationery Office, 1918.

The Irish Land Commissioners, who have recently issued their report for the year ending 31 March 1917, deal principally with business of two kinds: the fixing of fair rents, and the purchase of land from landlords by the occupiers under the several Land Purchase (Ireland) Acts (1).

(1) See on this subject an article by Francis W. Sheridan, "The Congested Districts of Ireland and the Work of the Congested Districts Board", in our issue for February 1915, page 103.

A. *The Fixing of Fair Rents.* — Rents are fixed in the case of holdings which have not previously been subject to such procedure, that is, in the received phrase, they are fixed for a "first statutory term". Rents are also determined for holdings for which fixed rents have already been paid for one or more statutory terms, that is they are determined for a second or for a third statutory term.

Between 1 April 1916 and 31 March 1917 the commission fixed rents for 104 holdings let by the year which had not thus been dealt with before, and these rents therefore became payable for a *first statutory term*. The new rents were in every case less than those formerly due, the average reduction effected being one of 8.5 per cent. In the same year the commission reduced the rent of two leaseholds in County Kildare, on an average by 5.2 per cent., the new rent being also payable for a first statutory term. Under the Redemption of Land (Ireland) Act 1891 the commission reduced for a first statutory term the rent of two holdings in County Fernanagh, two in County Dublin and one in Meath, on an average by 14.2 per cent. Finally the Civil Bill Courts notified the commission that they had fixed judicial rents for a first statutory term for 28 holdings, the average reduction of rent effected being one of 19.9 per cent.

For a *second statutory term* the commission fixed rents in 1916-1917 for 171 holdings. The second judicial rent thus determined was in every case less than that previously fixed for a first statutory term, the average difference being one of 13.2 per cent. The Civil Bill Courts similarly fixed for 26 holdings rents which were on an average less by 13.1 per cent. than those previously fixed for a first statutory term.

For a *third statutory term* the commission reduced, on an average by 12.2 per cent., the rents which had previously been fixed for a second statutory term for no less than 243 holdings; and the Civil Bill Courts effected a similar reduction, averaging 8.4 per cent., for 22 holdings.

In addition agreements fixing fair rents were in some cases made between landlords and tenants. Such agreements for a first statutory term were lodged with the commission in 218 cases in which rents had been reduced, on an average, by 10.3 per cent. Ninety-seven similar agreements reduced for a second statutory term rents previously fixed for a first term, on an average by 12.7 per cent.; and 199 agreements for a third statutory term reduced, on an average by 8.5 per cent., rents previously fixed for a second term.

Lastly the commission heard 85 appeals against rents fixed by itself for a first statutory term, 97 against rents so fixed for a second statutory term and 326 against those so fixed for a third statutory term; and in the event modified the fixed rents as follows:

Province	Appeals against first fixed rent		Appeals against second fixed rent		Appeals against third fixed rent	
	Number	Percentage of difference in rent after appeal	Number	Percentage of difference in rent after appeal	Number	Percentage of difference in rent after appeal
Ulster	13	— 7.3	47	+ 1.7	168	+ 4.2
Leinster.	9	— 1.4	13	— 5.1	22	— 0.34
Connaught	19	+ 12.3	3	— 4.1	—	—
Munster.	44	+ 0.65	34	— 2.5	136	— 0.18
Total . . .	85	+ 2.1	97	— 1.9	326	+ 1.38

Eighteen similar appeals against rents fixed by the Civil Bill Courts for a first statutory term, five against rents these courts had fixed for a second statutory term, and 14 against rents they had fixed for a third statutory term were heard. These appeals had the following results:

Province	Appeals against first fixed rent		Appeals against second fixed rent		Appeals against third fixed rent	
	Number	Percentage of difference in rent after appeal	Number	Percentage of difference in rent after appeal	Number	Percentage of difference in rent after appeal
Ulster	—	—	—	—	—	—
Leinster.	7	+ 4.5	—	—	2	— 4.2
Connaught	7	—	3	+ 30.9	4	+ 20.0
Munster.	4	+ 12.0	2	+ 16.7	8	+ 0.88
Total . . .	18	+ 5.1	5	+ 19.9	14	+ 0.19

Thus in 1916-1917 the Irish Land Commissioners reduced directly or indirectly the rents of 1,115 holdings and heard 545 appeals against fixed rents. All the available figures show however that such activity of theirs was less than it had been in the previous year.

The following tables summarize the effect on the whole rental of Ireland of the fixing of judicial rents from the time this process was first legalized in 1881 until 31 March 1917:

Rents fixed for a First Statutory Term from 1881 to 1917.

Province	Number of cases in which rents were fixed	Acreage			Former rent			Judicial ren			Percentage of reduction
		Acres	Roods	Poles	£	§	D	£	§	D	
Ulster . . .	163,788	3,395,766	3	18 ½	2,300,327	5	3 ½	1,846,093	15	0	19.7
Leinster . .	63,997	2,580,443	0	1	2,121,971	7	8	1,698,095	4	0	20.0
Connaught .	83,057	1,896,389	3	0 ½	922,873	2	7	730,249	7	8	20.9
Munster . .	71,202	3,203,991	0	31	2,184,642	1	3	1,699,085	10	3 ½	22.2
Total . . .	382,044	11,366,590	3	11	7,529,813	16	9 ½	5,973,523	16	11 ½	20.7

Rents fixed for a Second Statutory Term.

Province	Number of cases in which rents were fixed	Acreage			Rents before creation of first statutory term			Rents fixed for first statutory term			Rents fixed for second statutory term			Percentage of reduction of first to second rent
		Acres	Roods	Poles	£	§	D	£	§	D	£	§	D	
Ulster . . .	74,740	1,703,195	1	33 ½	1,245,069	5	6	1,002,264	11	10	779,477	1	5	22.2
Leinster . .	18,280	875,173	0	26	777,714	17	2 ½	622,573	12	10 ½	519,773	0	3	16.5
Connaught .	27,784	673,245	1	14	350,986	4	10 ½	279,969	9	10	230,816	8	2	17.6
Munster . .	22,884	1,170,644	1	38	865,955	15	7	673,111	2	9	549,605	19	10	18.3
Total . . .	143,688	4,422,258	1	31 ½	3,239,726	3	2	2,577,918	17	3 ½	2,079,672	10	8	19.3

Rents fixed for a Third Statutory Term.

Province	Number of cases in which rents were fixed	Acreage			Rents fixed for a first statutory term			Rents fixed for a second statutory term			Rents fixed for a third statutory term			Percentage of reduction of second to third rent
		Acres	Roods	Poles	£	§	D	£	§	D	£	§	D	
Ulster . . .	3,639	94,155	0	20	65,214	6	0	49,174	11	0	44,603	14	9	9.2
Leinster . .	382	20,494	0	36	17,045	14	8	13,733	12	10	12,884	10	3	6.2
Connaught .	648	16,523	0	21	7,666	2	11	6,250	5	11	5,431	13	5	13.1
Munster . .	802	44,451	0	0	27,488	13	5	21,913	0	5	19,704	18	11	10.1
Total . . .	5,471	175,623	1	37	117,414	17	0	91,071	10	2	82,624	17	11	9.3

B. The Purchase of Land.—In 1916-1917 the commission received 784 applications from tenants, all in the south and west of Ireland, for advances in cash wherewith to buy their holdings from their landlords. The particulars of these applications, which were in every case for a loan of the whole purchase money, were as follows :

Province	Number of loans applied for	Number of estates to be bought	Area			Rent			Purchase money
			Acres	Roods	Poles	£	s	d	£
Connaught	735	37	18,326	3	3	6,340	15	5	156,200
Munster	49	4	798	3	32	265	8	3	4,621
Total	784	41	19,125	2	35	6,606	3	8	160,821

Forty-eight similar applications were made for loans of guaranteed 3 per cent. stock, again chiefly for the purpose of buying land in Connaught and Munster :

Province	Number of loans applied for	Area of land to be bought			Rent			Purchase money
		Acres	Roods	Poles	£	s	d	£
Ulster	1	13	0	10	9	0	0	157
Leinster	2	70	0	27	35	19	0	667
Connaught	15	114	3	36	40	19	3	2,479
Munster	31	855	3	28	367	12	7	7,901
Total	48	1,054	0	21	453	10	10	11,204

Eleven loans in cash and six in guaranteed 3 per cent. stock were issued for the purchase of holdings in Connaught and Munster, the whole purchase money being advanced in every case. These loans were as follows :

Loans in Cash.

Province and County	Number of loans	Area			Rent			Purchase money
		Acres	Roods	Poles	£	s	D	£
Connaught:								
Leitrim	9	201	3	31	65	12	6	1,344
Roscommon	1	93	1	29	74	0	0	1,523
Munster:								
Cork	1	73	2	20	46	5	6	960
Total . . .	11	369	0	0	185	18	0	3,827

Loans in 3 per cent. Stock.

Connaught:								
Leitrim	3	50	2	2	14	15	0	279
Roscommon	1	28	1	1	14	10	0	146
Munster:								
Kerry	2	185	3	27	79	6	6	1,675
Total . . .	6	264	2	30	108	11	6	2,100

The purchase price of the holding in Roscommon for which an advance of stock was made was equivalent only to the rent of 10.1 years, that of the holding in Leitrim for which there was a like advance to the rent of 18.9 years. In all the other cases the purchase price was the rent of a little more than twenty years.

In addition advances were made for the purchase of demesnes of estates previously bought by the Congested Districts Board of Ireland, as follows :

Province and County	Under Act of 1903					Under Act of 1909				
	Number of loans	Area			Purchase money	Number of loans	Area			Purchase money
		Acres	Roods	Poles	£		Acres	Roods	Poles	
Connaught:										
Galway	1	43	3	10	515	1	54	2	20	822
Leitrim	—	—	—	—	—	—	—	—	—	—
Mayo	—	—	—	—	—	3	1,050	0	29	13,568
Roscommon . . .	1	251	1	23	1,800	—	—	—	—	—
Munster:										
Clare	—	—	—	—	—	1	106	1	28	1,478
	2	295	0	33	2,315	5	1,211	0	37	15,868

To the Congested Districts Board advances were made for the purchase of an estate in County Galway and another in County Mayo.

The total advances made to tenants for the purchase of land from landlords from 1891 to 31 March 1917 have been as follows:

Advances in Cash.

Province	Number of loans	Area of lands			Rent			Purchase money	Amount of loans
		Acres	Roods	Poles	£	s	D	£	£
Ulster	2,154	42,637	3	16	14,349	1	3	310,634	308,153
Leinster	562	17,888	0	17	10,797	3	3	214,144	208,411
Connaught	8,628	181,283	3	17	57,748	16	11	1,268,873	1,262,920
Munster	1,978	65,136	1	3	24,884	4	9	493,087	489,455
Total . . .	13,142	306,946	0	3	107,779	6	2	2,286,738	2,268,939

Advances in Guaranteed three per cent. Stock

Ulster	310	5,692	2	35	2,066	7	7	44,857	44,718
Leinster	49	1,953	1	16	1,096	9	3	21,152	21,020
Munster	68	1,426	0	17	563	7	6	10,781	10,774
Connaught	100	5,816	3	2	2,336	14	2	46,023	46,017
Total . . .	527	14,888	3	30	6,062	18	6	122,813	122,529

The figures show that almost the whole purchase money has been advanced. The prices in the case of the holdings for which cash has been advanced have been equal, on an average, to the rental of 21.2 years; in the case of those for which stock has been advanced to that of 20.3 years. In the former case the average price has been less than nineteen years' rent only in County Cavan (18.8 years), King's County (18.9 years), and Counties Louth (16.2 years), Westmeath (18.7 years), Clare (18.5 years), and Waterford (16.1 years); in the case of land for which stock has been advanced it has been less than nineteen years' rent in Counties Donegal (18.9 years) and Kilkenny (13.0 years), King's County (16.6 years) and Counties Wicklow (17.3 years), Galway (15.4 years) and Clare (18.7 years).

From 1903 to 31 March 1917 the total loans for purchases of demesnes on estates previously bought by the Congested Districts Board have been as follows:

Province and County	Under Act of 1903					Under Act of 1909						
	Number of loans	Area bought			Pur- chase Money	Amount of loans	Number of loans	Area bought			Pur- chase money	Amount of loans
		Acres	Roods	Poles	£	£		Acres	Roods	Poles	£	£
Connaught:												
Galway . . .	5	1,114	2	16	11,481	10,826	4	1,217	1	26	8,451	8,451
L. e. trim . . .	1	43	3	10	515	515	—	—	—	—	—	—
Mayo	3	581	1	3	11,663	9,242	5	2,081	0	37	25,792	25,283
Roscommon .	3	494	0	2	7,800	7,800	—	—	—	—	—	—
Sligo.	1	144	0	8	1,200	1,200	—	—	—	—	—	—
Munster:												
Clare.	—	—	—	—	—	—	1	106	1	28	1,478	1,478
Ke. ry	1	231	3	21	6,000	6,000	—	—	—	—	—	—
	14	2,609	2	20	38,659	35,583	10	3,405	0	11	35,721	35,212

Between 1899 and 31 March 1917 there have been made to the Congested Districts Board a total of thirty-five advances in cash, amounting to £274,926, for the purchase of two estates in Ulster, twenty-eight in Connaught and three in Munster; and nineteen advances in 3 per cent. stock, amounting to £90,891, for the purchase of seventeen estates in Connaught and two in Munster. Thus the board has been enabled to buy altogether fifty-four estates.

The following advances have been made by the commission on resales by the Congested Districts Board of estates which the latter bought with money advanced under the Land Purchase Acts of the period from 1891 to 1909:

County	Number of resales	Area in acres	Purchase money	Advances made
			£	£
Donegal	573	6,470	38,493	37,592
Galway	883	21,650	182,982	181,922
L. e. trim	1	44	515	515
Mayo	6,492	146,536	735,864	729,536
Roscommon . . .	2,457	47,355	382,295	380,870
Sligo	453	10,117	84,492	84,492
Clare	1	106	1,478	1,478
Cork	88	2,405	13,094	13,094
Kerry	783	27,179	136,974	136,634
Total	11,731	261,862	1,576,187	1,566,133

*
* *

2. LAND SETTLEMENT BY EX-SERVICE MEN IN ENGLAND AND WALES. —
Board of Agriculture and Fisheries: Annual Report of Proceedings under the Small Holdings Colonies Act, 1916, for the year 1917.

A. *The Colonies.*

The Board which came into existence under the Small Holding Colonies Act, 1916, was authorized to acquire altogether 6,000 acres on which to found agricultural colonies for discharged soldiers and sailors. The report of the proceedings of this Board in 1917 shows that the whole authorized extent of land had been acquired by the end of that year. The Board's officers inspected and reported on a number of estates and of these four were finally chosen as suitable to form the sites of colonies. The Departmental Committee on Land Settlement for Soldiers and Sailors had reported that it would generally be found necessary to buy the land needed for farm colonies; but that advantage ought to be taken of any opportunities which might present themselves to acquire suitable land on long leases, as in this way the capital sunk in establishing the settlements would be reduced as much as possible. The Board has accordingly acquired two estates in England on lease from the crown, but for the other two colonies, one in England and one in Wales, it has had to buy estates.

In general it is intended that the colonies of small holdings which are founded should conform to one of three types, that is that they should be devoted to fruit growing and market gardening, to dairy farming or to mixed farming.

It is intended that a cottage should be erected on or near each holding, and for the sake of economy these cottages are being built on one plan. Outbuildings have as yet not been begun, for it is anticipated that it will be possible to use for them many military hutments, and thus effect a saving in the rent which tenants will have to pay.

In establishing the colonies on a sound economic basis the Board has been considerably handicapped, for the cost of building has increased by about 70 per cent. during the war and the rate of interest on loans for small holdings is now 5 $\frac{1}{2}$ per cent. These circumstances will probably hamper the Board's enterprise for the next few years.

Patrington Crown Colony. — In our issue for December 1916 (1) we gave some account of the proposed establishment of this colony.

The land is held on a crown lease for 99 years at a yearly rent of £3,277. The original proposal, to divide the land into some sixty small holdings and a central farm, has been abandoned for the present, as the Board decided that the estate could most advantageously be worked on a profit-sharing basis until practical experience had decided to what extent the heavy warp land was adapted for the intensive crops necessary on small holdings. The estate

is therefore being farmed as a whole, under a director who took up his residence at Patrington on 9 May 1917. It is anticipated that it will eventually support some sixty settlers, as was originally planned. For the present, the cultivation mostly depends on local labour and on soldiers temporarily released from the army.

The Housing Organization Society, appointed to act as agents for the Board, has erected fifteen pairs of cottages on the estate, is erecting eight further pairs, and has effected various alterations and repairs to existing buildings.

Crown Estate, Holbeach. — This estate of 1,000 acres in the Holland division of Lincolnshire has also been acquired from the Crown on a lease of 99 years. The rent is £1,623 a year.

The land is well adapted, as regards its soil and situation, to market-gardening, for which it is intended. It is proposed to divide it into holdings of about ten acres each, and to accommodate altogether about 80 settlers. Suitable cottages and buildings are being provided for each cottage, the building contract having been put out in this case to competitive tender.

Possession of this estate was obtained on the 11th of last October, but arrangements with the quitting tenants allowed building to begin at the end of the previous April. So far two holdings have been allotted and the rest of the estate is being farmed as a whole.

Health Hill Estate, Salop. — This property, which comprises about 1,150 acres and formed part of the Duke of Sutherland's Lilleshall estate, has recently been bought by the Board for £40,000. Possession was to be obtained at Lady Day, 1918, and plans for the development of the land have not yet been completed; but it is estimated that it will provide about forty small holdings to be utilized for dairy-farming and market-gardening.

Pembrey Carmarthen. — The Board has agreed, after consultation with the Welsh Agricultural Committee and subject to the completion of a formal contract, to buy for £30,000 an estate of 1,345 acres at Pembrey. It is expected that possession of this colony, which will provide for about sixty settlers, will be obtained at Michaelmas.

B. The Colonists.

The Board's first consideration in deciding upon the applications for holdings which it receives is the question of the capacity of the applicants to earn a living on the land. It will therefore be able to provide only for a small number of disabled men. The colonies are not intended as a provision for disabled men but as an experiment in the grouping of small holdings.

The Board has prepared a special form which is filled in by applicants for land. Afterwards they are interviewed at some convenient centre, their third class railway fares to this place being paid when necessary, and their fitness to become small holders is investigated. If they promise well and have been discharged from the army, arrangements are made for them to begin work on the colony they prefer. As a rule an accepted applicant

will have to work for wages on a colony for a year before he is finally allotted a holding.

The Departmental Committee on Land Settlement for Soldiers and Sailors did not recommend that capital should be advanced to men wishing to become small holders, and the Board has no power to make such advances. It is satisfactory that a considerable number of the applicants for land have capital which in some cases is adequate. Out of the 178 cases with which the Board has dealt, 54 applicants have possessed capital not exceeding £50, 42 from £50 to £100, 26 from £100 to £200, 13 from £200 to £400, and only 43, or less than a fourth, no capital at all.

Some applicants have wished to buy holdings on the colonies. This is impossible where the land is held on lease, as at Patrington and Holbeach; but where the Board owns the freehold it has power, subject to Treasury sanction and to the provisions of Section 12 of the Small Holdings and Allotments Act, 1908, to sell it to the occupiers who may pay for it by periodical instalments spread over a term of years.

*
* *

3. A SCHEME TO PROVIDE HOME-GROWN TIMBER.

The final report of the forestry Sub-Committee of the Reconstruction Committee (Cd. 8881) has been issued. It recommends a comprehensive scheme for national afforestation, and the Minister of Reconstruction is carefully considering how far and in what way effect may be given to the proposals. The Sub-Committee was appointed by the Prime Minister in July, 1916.

The Committee recommend a scheme of State planting which in an emergency would keep the United Kingdom independent of imported timber for three years on a present-day war basis of consumption. The total cost for the first ten years would be about £3,500,000 allowing not only for the direct cost of afforestation but for all incidental charges. Against this expenditure must be considered not the financial return on the capital, which, though certain, would be distant, but the sum that it has cost us during this war through the enormously enhanced prices of imported timber. During 1915 and 1916 alone we paid £37,000,000 more than its pre-war value for the timber we imported. "Such a sum", say the Reconstruction Committee, "would cover several times over any possible loss which could be incurred on a well conducted afforestation scheme".

More important from a war point of view than cost was the amount of tonnage absorbed by these imports, which the report states at 7,000,000 net tons of shipping, equivalent to approximately 14,000,000 tons dead weight. The proportion got from the Empire fell from 22 per cent. in 1899 to 10 per cent. in 1913. The practical utility of afforestation at home is proved by the fact that 90 per cent. of our imports are the soft woods of coniferous trees which could be grown in this country.

The Reconstruction Committee estimate that there are not less than

three and probably more than five million acres of land utilized for rough grazing but capable of growing first-class timber of the same character as that imported. Of this area 2,000,000 acres could be put under timber without decreasing the home production of meat by more than 0.7 per cent., and it would ultimately give employment to at least ten times the number of men now employed by grazing.

The Scheme. — The scheme which the Committee recommend proposes to afforest 1,770,000 acres. Taking 80 years as the average rotation, two thirds of the whole should be planted in the first 40 years. From the 15th year onwards the scheme would begin to provide pit-wood from the quicker growing species on the better kinds of mountain land. By the 40th year the plantations made in the first 10 years alone would contain enough timber to keep our pits supplied in emergency for two years at the present rate of consumption. The total cost for the first 40 years may be £15,000,000. After that time the scheme should be self-supporting. The whole sum involved is therefore less than half the direct loss incurred during the years 1915 and 1916 through dependence on imported timber.

The report points out that if the Government should wish to employ the maximum number of men discharged from the Services during the period of demobilization, the rate of planting might be greatly speeded up. The Committee propose that at least 150,000 acres of the initial 250,000 should be planted by direct State action, and that for the remainder (left to local bodies and private landowners) there should be State assistance and control. "We do not believe (says the report) that State afforestation means expensive and inefficient action. On the contrary, we have the long experience of all the countries in which afforestation has reached a high pitch of development, and the promising methods of management in certain of the Crown woods of recent years, to prove the opposite".

The Committee's scheme of State control and management is to create a special authority, a Forestry Commission represented by a Parliamentary Commissioner in the House of Commons. The Commission would consist of six members, three of them whole-time salaried officials, the others unpaid. There would be consultative committees for England, Wales, Scotland, and Ireland.

For carrying out the scheme, forest officers, foresters and foremen would be required and would have to be trained. Forest officers would be inspectors engaged on survey, planting plans, supervision of planting, and advisory and experimental work. It is estimated that the service would require 60 officers by the fifth year of operation. Probably 20 reliable men with a good knowledge of British conditions would be available at the outset. These men would have to be university trained and the standard necessary is that represented by a good honours degree in science.

It is recommended that the Forestry Commission should undertake the general control of forestry education, and should maintain "demonstration woods" for practical work.

The increase of population on the land under the Committee's scheme would be considerable. It is estimated that it would result ultimately

in the settlement on the soil of not less than 25,000 families, or 125,000 persons in all.

War necessities. — The necessities of war govern the whole report. A few passages may be quoted from the general summing-up of the military case for afforestation :—

“ We have, to speak plainly, run risks against which every other considerable country has long taken care to protect herself ”.

“ The war has disclosed no demand which could not have been satisfied by timber grown in this country with its favourable soil and climate and abundance of waste land ”.

“ It is only a question of time before the whole of the country's growing timber which is fit for commercial use must disappear. The result is a depletion which the Government cannot afford to neglect. This country, poorer in timber at the beginning of the war than any other European country except Portugal, will be more destitute still at its close. Even if every acre felled is replanted, it will be many years before the present output can be repeated ”.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Sixteen other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets;

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(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit;

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119 30327	yards
1 Crown (100 keller) (Austria-Hungary)	=	10 <i>d.</i>	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1 <i>s.</i> 1 ¹ / ₅ <i>d.</i>	at par
1 Declatine (2 tchetweit) (Russia)	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ²³ / ₆₄ <i>d.</i>	at par
1 Dollar, gold, (\$) (100 cents) (United States)	=	4 <i>s.</i> 5 ¹⁵ / ₁₆ <i>d.</i>	at par
1 Drachm, gold, (100 lepta) (Greece)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1 <i>s.</i> 7 33/ ₆₄ <i>d.</i>	at par
1 Franc (100 centimes) (France)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold, (100 bani) (Rumania)	=	9 ²³ / ₆₄ <i>d.</i>	at par
1 Leu (100 statinki) (Bulgaria)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Lira (100 centesimi) (Italy)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Litre	=	0.21998	gallons
1 Mark (100 Pfennige) (Germany)	=	0.0275	bushels
1 Mark (100 penni) (Finland)	=	11 3/ ₄ <i>d.</i>	at par
1 Metre	=	9 33/ ₆₄ <i>d.</i>	at par
1 Milreis, gold, (Brazil)	=	3.28084	feet
1 Milreis, gold, (Portugal)	=	2 <i>s.</i> 2 ⁶¹ / ₆₄ <i>d.</i>	at par
1 Peseta, gold, (100 céntimos) (Spain)	=	4 <i>s.</i> 5 ¹⁹ / ₆₄ <i>d.</i>	at par
1 Peso, gold, (100 centavos) (Argentina)	=	9 33/ ₆₄ <i>d.</i>	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	3 <i>s.</i> 11 37/ ₆₄ <i>d.</i>	at par
1 Pund (Sweden)	=	18 <i>s.</i> 0 33/ ₆₄ <i>d.</i>	at par
1 Quintal	=	0.93712	lbs.
1 Ruble, gold, (100 kopeks) (Russia)	=	1.96843	cwts.
1 Rupee, silver, (16 annas) (British India)	=	2 <i>s.</i> 1 3/ ₈ <i>d.</i>	at par
1 Talari (20 piastres) (Egypt)	=	1 <i>s.</i> 4 <i>d.</i>	at par
1 Verst (Russia)	=	4 <i>s.</i> 1 11/ ₃₂ <i>d.</i>	at par
1 Yen, gold, (2 fun or 100 sen) (Japan)	=	1166.64479	yards
1 Zentner (Germany)	=	2 <i>s.</i> 0 37/ ₆₄ <i>d.</i>	at par
	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

UNITED STATES.

A STATISTICAL ENQUIRY
INTO CO-OPERATIVE ORGANIZATION (*concluded*).

§ 9. SUMMARY OF LAWS ON CO-OPERATION OF THE VARIOUS STATES.

We will conclude this paper by summarizing the chief provisions of the laws which regulate co-operation in the different States of the Union.

ALABAMA.

Scope and purpose of an association : Mutual aid, benefit, industry.

Number who may organize : Five or more.

Filing of articles of incorporation : With judge of probate in county in which principal place of business is situated.

Filing fee : As for other corporations. Judge of probate shall receive 15 cents per 100 words and \$ 2.50 for examining articles.

Management : Not less than five directors.

Capital stock : Not less than \$ 5,000.

CALIFORNIA.

Scope and purpose : Any lawful business.

Number who may organize : Five or more.

Filing of articles of incorporation : Clerk of county in which the prin-

principal place of business is situated, a copy with the Secretary of State.

Filing of amendments : With clerk of county.

Capital stock : Non-stock.

Transfer of memberships : May be transferred by board of directors.

Voting : Each member one vote.

Voting by mail or by proxy : May be provided for in by-laws.

Distribution of profits : According to by-laws.

Dissolution : Upon written request of two thirds of the members.

COLORADO.

Non-Stock:

Scope and Purpose : Producing, preserving, drying, canning, shipping or marketing of agricultural, viticultural, horticultural, dairy or apianian products.

Number who may organize : Three or more.

Filing of articles of incorporation : With Secretary of State and Recorder of Deeds in county in which the principal place of business is situated.

Filing fee \$15 to Secretary of State

Filing of amendments : With Secretary of State and with clerk of county.

Capital stock : Non-stock

Transfer of memberships : May be transferred with the consent of the board of directors

Voting : Each member one vote

Voting by mail and by proxy : No voting by proxy. By-laws may provide for voting by mail.

Dissolution : Upon written request of two thirds of the members.

Capital Stock:

Scope and purpose : Any lawful business.

Number who may organize : 10 or more.

Filing of articles of incorporation : With Secretary of State.

Filing fee : As for corporations in general.

Stock ownership : May be limited by by-laws.

Distribution of profits : According to by-laws :

CONNECTICUT.

Scope and purpose : Trade or any lawful mercantile, mechanical, manufacturing or agricultural business.

Number who may organize : Seven or more.

Filing of articles of incorporation ; With town clerk in town in which business is conducted.

Management : President, treasurer and board of not less than five directors.

Capital stock : Not to exceed \$ 50,000.

Issue of stock : When paid for in full.

Stock ownership : Limited to \$ 1,000.

Purchase of business of other associations : Two or more associations formed under this Act may consolidate.

Voting : Each member one vote.

Distribution of profits : According to by-laws, provided that 10 per cent. of net profit be appropriated to a reserve fund until it equals 20 per cent. of the capital stock.

Dissolution : Upon request of two thirds of members.

Annual reports : To be made to the Secretary of State.

FLORIDA.

Scope and purpose : Producing, preserving, drying, packing, shipping or marketing of horticultural and agricultural products.

Number who may organize : Three or more.

Filing of articles of incorporation : As for other corporations.

Management : Not less than three directors.

Capital stock : Non-stock.

Transfer of memberships : By permission of the board of directors.

Voting : As provided by the articles of incorporation.

Voting by proxy : May be provided for in the by-laws.

Dissolution : Upon written request by two thirds of the votes.

ILLINOIS.

Scope and purpose : General mercantile, manufacturing and producing business.

Number who may organize : Five or more.

Filing of articles of incorporation : With Secretary of State.

Filing of amendment : With Secretary of State and Recorder of Deeds in county in which principal place of business is situated.

Management : Not less than five directors. Officers shall be president, vice-president and treasurer. The offices of the last two may be combined.

Capital stock : Shares not less than \$ 5 or more than \$ 100 in value.

Stock ownership : Limited to five shares.

Transfer of stock : By-laws may provide that corporations shall have first right to purchase any stock for sale.

Purchasing business of other associations : By a two-thirds vote of at least two thirds of the members the corporation may invest its surplus to the extent of 25 per cent. of its paid-up capital in the capital stock of other co-operative associations, and the board of directors may invest a maximum of 10 per cent. of the paid-up capital in the same manner.

Voting by mail and by proxy : A vote by mail counts if the voter has been notified in writing and it is accompanied by a copy of the motion. Proxies may be appointed by writing.

Distribution of profits : According to by-laws.

Annual reports : To be made to Secretary of State before 1 March.

Provisions for existing organizations: They may come under this Act by filing a sworn statement that members have decided to do so by a majority of at least two thirds.

Use of word "co-operative": No corporation formed after the passage of this Act may use the word unless it complies with this Act.

INDIANA.

Scope and purpose: Any lawful business.

Number who may organize: Twenty-five or more.

Filing of articles of incorporation: With Secretary of State.

Filing fee: As for other corporations.

Stock ownership: May be limited by by-laws.

Transfer of stock: May be regulated by by-laws.

Distribution of profits: According to by-laws.

Provision for existing organizations: May come under the Act by filing declaration with Secretary of State.

IOWA.

Scope and purpose: Agricultural, dairy, mercantile, manufacturing or mechanical business.

Number who may organize: Five or more.

Filing of articles of incorporation and amendments: With Secretary of State and Recorder of Deeds of the county in which the principal place of business is situated.

Filing fee: Ten dollars to Secretary of State for filing articles and \$5 for amendments, provided that if capital stock be less than \$500 the fee is \$1. Recorder of Deeds to receive the usual recording fee.

Management: Not less than five directors. Officers shall be president, one or more vice-presidents, secretary and treasurer. The offices of the last two may be combined.

Issue of stock: When paid for in full.

Stock ownership: Not to exceed \$100.

Purchase of business of other associations: By the vote of a majority not more than 25 per cent. of the capital of an association may be thus invested.

Voting: Each member has one vote.

Voting by mail: Allowed if the member thus voting has been notified in writing and if a copy of the motion accompanies his vote.

Distribution of profits: Subject to revision by association; dividend on stock not to exceed 10 per cent.; not less than 10 per cent. of net profits until 50 per cent. of paid-up capital has accumulated for a reserve fund; 5 per cent. of net profits for an educational fund; suppliers' dividends to members and employees.

Dissolution: If no dividends are paid for five consecutive years, five members may petition district court.

Annual reports : To Secretary of State before 1 March.

Provision for existing organizations. A given association must file a sworn statement that a majority of its members has voted in favour of coming under this Act.

Use of word "co-operative" : After the passage of this Act no corporation not complying with it to use the word.

KANSAS.

Scope and purpose : Any agricultural, mercantile, dairy, mining, manufacturing or mechanical business.

Number who may organize : Twenty or more.

Filing of articles of incorporation : With Secretary of State.

Management : Not less than five directors. Officers shall be president, one or more vice-presidents, secretary and treasurer. The offices of the last two may be combined.

Stock ownership : Not over 10 per cent. of capital stock.

Voting : Each member one vote.

Distribution of profits : According to by-laws.

Annual reports : Made to Secretary of State.

Provision for existing organizations : May file sworn statement that majority of their members have decided to come under this Act and pay fees.

Use of word "co-operative" : Organizations not complying with this Act may not use the word.

MASSACHUSETTS.

Scope and purpose : Any agricultural, dairy or mercantile business.

Number who may organize : Seven or more.

Capital stock : Not to exceed \$10,000.

Stock ownership : Not to exceed \$400.

Investment of reserve : May be invested in buildings of association or lent to members on real estate mortgages.

Voting : Each member one vote.

Distribution of profits : Capital stock dividends not to exceed 5 per cent. ; not less than 10 per cent. of net profits for reserve fund until at least 30 per cent. of paid-up capital is accumulated ; not more than 5 per cent. of net profits for an educational fund ; suppliers' dividend must be paid to stockholders and may be credited to non-stockholders as payment on share of stock at one half the rate to stockholders.

Provision for existing organizations : May file sworn statement that association has decided by the vote of a majority to come under this Act and pay fee of \$1.

MICHIGAN.

Non-Stock :

Scope and purpose : Any lawful purpose other than pecuniary profit.

Number who may organize : Five or more.

Filing of articles of association : With the Secretary of State and the clerk of the county in which the principal place of business is conducted.

Capital stock : Non-stock.

Provision for existing organizations : Any corporation not aiming at pecuniary profit may reincorporate under this Act.

Capital Stock.

Scope and purpose : Mercantile, agricultural or manufacturing business.

Number who may organize : Five or more.

Filing of articles of incorporation and amendments : With Secretary of State and clerk of county in which principal place of business is situated.

Filing fee : As for other corporations.

Management : Not less than five directors. Officers to be president, vice-president, secretary and treasurer. The offices of the last two may be combined.

Issue of stock : When paid for in full.

Stock ownership : Not more than \$1,000.

Voting : Each member one vote.

Voting by mail : Allowed if the voter is notified by writing and a copy of the motion is attached to his vote.

Distribution of profits : Subject to revision by the association, 6 per cent. stock dividends, 10 per cent. of net profits for reserve fund until 30 per cent. of paid-up capital is accumulated. Suppliers' dividends may be paid to non-members at half the rate to members.

Annual reports : Made to Secretary of State.

Provision for existing organizations : May come under this Act by complying with its provisions and filing a sworn statement with the Secretary of State.

MINNESOTA.

Scope and purpose : Any lawful mercantile, manufacturing or agricultural business.

Filing of articles of incorporation : With registrar of deeds of the county in which the principal place of business is situated.

Management : President, treasurer and not less than three directors.

Capital stock : Not to exceed \$100,000. For creameries not to exceed \$ 25,000.

Issue of stock : When paid for in full.

Stock ownership : Not over \$1,000.

Voting : Each member one vote.

Distribution of profits : According to by-laws.

Dissolution : If no dividends are paid for five consecutive years, five or more members may apply to district court.

Annual report : Creameries report to dairy and food department.

MONTANA.

Scope and purpose : Trade or any branch of industry, purchase or distribution of commodities for consumption, borrowing or lending money.

Number who may organize : Not less than three nor more than seven incorporators.

Filing of articles of incorporation : With Secretary of State.

Filing fee : \$5.

Capital stock : Shares of not less than \$ 10 or more than \$ 5,000 each.

Stock ownership : One share each.

Voting : Each member one vote.

NEBRASKA.

Scope and purpose : Any lawful business.

Number who may organize : Not less than 25.

Filing of articles of incorporation : with Secretary of State.

Filing fee : As for other corporations.

Stock ownership : According to by-laws.

Transfer of stock : According to by laws.

Distribution of profits : According to by-laws.

Provision for existing organizations : May come under Act by filing sworn statement with Secretary of State.

NEVADA.

Scope and purpose : Any lawful business.

Number who may organize : Five or more.

Filing of articles of incorporation : With Secretary of State and clerk of county in which principal place of business is situated.

Management : According to by-laws.

Capital stock : Non-stock.

Transfer of memberships : By permission of the board of directors.

Voting : Each member one vote.

Distribution of profits : According to by-laws.

Dissolution : By written request of two thirds of the members.

NEW JERSEY.

Scope and purpose : Any lawful mechanical, mining, manufacturing or trading business.

Number who may organize : Seven or more.

Filing of articles of association : Approved by chief of bureau of

statistics of labour and industries. Filed with clerk of county in which principal place of business is situated.

Management : Not less than five directors. Officers shall be president, treasurer and secretary.

Capital stock : Share value not less than \$ 50.

Issue of stock : When paid for in full.

Transfer of stock : According to by-laws.

Purchasing of business of other association : May have interest in another society to the extent of one third of its paid-up capital.

Voting : Each member one vote.

Distribution of profits : According to by-laws.

Dissolution : As for other corporations.

Annual reports : To the clerk of the county and the chief of the bureau of statistics of labour and industries.

NEW MEXICO.

Scope and purpose : Producing, preserving, drying, packing, shipping or marketing agricultural, viticultural or horticultural products.

Number who may organize : Three or more.

Filing of articles of incorporation : As provided by State law.

Management : According to by-laws.

Capital stock : Non-stock.

Transfer of memberships : Not to be transferred without consent of board of directors.

Purchasing of business of other associations : Associations formed under this Act may consolidate upon a vote of two thirds of the members. Two or more associations may use the same agencies.

Voting : According to articles of incorporation.

Voting by mail : According to by-laws.

Dissolution : Upon request of members representing two thirds of total vote.

NEW YORK.

Scope and purpose : General producing, manufacturing and mercantile business.

Number who may organize : Five or more.

Filing of articles of incorporation : As for other corporations.

Management : Not less than five directors. Officers shall be president, one or more vice-presidents, secretary and treasurer. Offices of last two may be combined.

Capital stock : Shares of \$5 each.

Issue of stock : When paid for in full.

Stock ownership : Not over \$5,000.

Transfer of stock : By written consent of corporation.

Purchasing business of other associations : Not to exceed 25 per cent. of its capital.

Voting : Each member one vote.

Voting by mail : Allowed when member has been notified as to motion and a copy thereof is attached to vote.

Distribution of profits : Stock dividends not to exceed 6 per cent. ; not less than 10 per cent of net profits for a reserve fund until 30 per cent. of paid-up capital is accumulated ; 5 per cent. of net profits for an educational fund ; suppliers' dividends to members and employees and at one-half rate to non-members.

Dissolution : If no dividends are paid for five consecutive years, five or more members may petition supreme court of county.

Annual reports : To Secretary of State.

Provision for existing organizations : Filing sworn statement with Secretary of State.

Use of word "co-operative" : Not to be part of the name of any corporation framed after the passage of this Act and not complying therewith.

NORTH CAROLINA.

Scope and purpose : Any agricultural, dairy, mercantile, mining, manufacturing or mechanical business.

Number who may organize : Five or more.

Filing of articles of incorporation and amendments : With Secretary of State and clerk of superior court in county in which principal place of business is situated.

Filing fee : \$10 and fee allowed by law to Secretary of State ; \$2 when capital stock is less than \$1,000. Fifty cents to clerk of court. For filing amendments \$ 5, or \$ 2 if capital stock is less than \$ 1,000.

Management : Not less than five directors. Offices shall be those of president, one or more vice-presidents, secretary and treasurer. Those of the last two may be combined.

Stock ownership : Limited to 20 per cent. of paid-up capital stock.

Transfer of stock : According to by-laws.

Voting : Each member one vote.

Voting by mail and proxy : Vote by mail to count if accompanied by a copy of the motion. Proxies must be appointed in writing.

Distribution of profits : Subject to revision by association, stock dividends not to exceed 6 per cent., not less than 10 per cent. of net profits to reserve fund until 30 per cent. of paid-up capital is accumulated, not less than 2 per cent. of net profits for an educational fund, suppliers' dividends to members and employees and to non-members at one half rate.

Annual report : To Secretary of State and division of markets and rural organization.

Provision for existing organizations : Filing sworn statement with Secretary of State.

Use of word "co-operative" : Not to be used in name of any organization hereafter formed and not complying with this Act.

NORTH DAKOTA.

Scope and purpose : Any lawful mercantile, manufacturing, agricultural or industrial business.

Filing of articles of incorporation : With Secretary of State.

Filing fee : \$10.

Management : President, secretary, treasurer and not less than three directors.

Capital stock : Not to exceed \$50,000.

Issue of stock : When paid for in full.

Stock ownership : Not over \$1,000.

Voting : Each member one vote.

Distribution of profits : According to by-laws.

Dissolution : If no dividends are paid in five years, five or more members may petition.

Annual reports : Creameries report to dairy commissioner.

OHIO.

Scope and purpose : Trade associations.

Distribution of profits : According to by-laws.

OREGON.

Scope and purpose : Any lawful business.

Number who may organize : Five or more.

Filing of articles of incorporation and amendments : With Secretary of State, clerk of county and Oregon Agricultural College.

Filing fee : \$10 to Secretary of State, 25 cents per 100 words to clerk of county. For amendments \$5 to former and 25 cents per 100 words to latter.

Management : President and four other directors.

Issue of stock : When paid for in full.

Stock ownership : Not over one fifth.

Purchasing of business of other associations : Not to exceed 20 per cent. of its capital and reserve fund.

Voting : Each member one vote.

Voting by mail and proxy : May vote by mail, not by proxy.

Distribution of profits : Stock dividends not to exceed 6 per cent. ; not less than 5 or more than 25 per cent. of net profits for reserve fund ; suppliers' dividends to non-members at one half the rate to members.

Dissolution : By written request of two thirds of members.

Annual reports : To Secretary of State and Oregon Agricultural College.
 Provision for existing organizations : Must file sworn statement with Secretary of State.

Use of word "co-operative" : Restricted to associations complying with this Act

PENNSYLVANIA.

Scope and purpose : Productive or distributive business.

Number who may organize : Five or more.

Filing of articles of incorporation and amendments : With Secretary of State and recorder of deeds of county in which principal place of business is situated.

Filing fees : 10 cents for each 100 words to Secretary of State and recorder of deeds.

Capital stock : Shares \$5 to \$25.

Stock ownership : \$1,000. May be increased by vote of members.

Purchasing business of other associations : By vote of majority of members

Voting : Each member one vote.

Voting by proxy : Not allowed.

Distribution of profits : Stock dividends of 5 or 6 per cent ; not less than 2 ½ per cent. of net profits for educational fund ; suppliers' dividends to members and employees and at half rate to non-members.

Dissolution : By vote of majority of members.

Reports : To be posted in principal office every month.

Existing organizations : May come under Act by vote of a majority.

SOUTH CAROLINA.

Scope and purpose : Agricultural, dairy, mercantile, mining, mechanical or manufacturing business.

Number who may organize : Five or more.

Filing of articles of incorporation : With Secretary of State.

Management : Not less than five or more than nine directors. Offices shall be those of the president, secretary and treasurer, or those of the last two may be combined.

Capital stock : Not less than \$100.

Stock ownership : Not over one fifth

Purchase of business of other associations : By a vote of a majority reserve may be invested in capital stock of other associations to the extent of not more than 25 per cent of capital.

Voting : Each member one vote.

Distribution of profits : May be revised by association ; stock dividends not to exceed 6 per cent. ; not less than 10 per cent. of net profits to reserve fund until at least 30 per cent. of paid-up capital stock is accumulated ; 5 per cent. of net profits to educational fund ; patronage dividends to share-

holders and employees, and to non-members at half the rate, may be credited on share of stock.

Annual reports : To commissioner of agriculture.

Provision for existing organizations : May file sworn statement with Secretary of State.

Use of word "co-operative" : Forbidden to organizations formed after the passage of this Act and not complying with it.

SOUTH DAKOTA.

Scope and purpose : Any agricultural, dairy, mercantile, mining, manufacturing or mechanical business.

Number who may organize : Five or more.

Filing of amendments : With Secretary of State.

Management : Not less than five directors. Offices shall be those of president, one or more vice-presidents, secretary and treasurer, or those of last two may be combined.

Stock ownership : Not more than \$1,000.

Purchase of business of other associations : By vote of a majority up to 25 per cent. of capital.

Voting : Each member one vote.

Voting by mail : Permitted if vote is accompanied by written copy of motion.

Distribution of profits : May be revised by association ; dividends on capital stock not to exceed 10 per cent ; not less than 10 per cent. of net profits to reserve fund until 30 per cent. of paid-up capital is accumulated ; not more than 5 per cent. of net profits for educational fund ; suppliers' dividend to shareholders.

Provision for existing organizations : To file sworn statement with Secretary of State.

TENNESSEE.

Scope and purpose : Buying and selling any agricultural products and dealing in merchandise.

Number who may organize : Seven or more.

VIRGINIA.

Scope and purpose : Any agricultural, dairy, mercantile, manufacturing or mechanical business.

Number who may organize : Five or more.

Filing of articles of incorporation : With judge of circuit court, State corporation commissioner, secretary of the commonwealth, and clerk of circuit or chancery court.

Filing fee : To secretary of commonwealth and clerk of court.

Management : Not less than three directors. Officers shall be

president, one or more vice-presidents, secretary and treasurer. Offices of last two may be combined.

Stock ownership : Not to exceed \$1,000.

Purchase of business of other organizations : By vote of majority, up to 25 per cent. of its capital.

Voting : Each member one vote.

Voting by mail : If vote is accompanied by copy of motion.

Distribution of profits : May be revised by associations ; stock dividends not to exceed 6 per cent. ; not less than 10 per cent. of net profits to reserve until 30 per cent. of paid-up capital stock is accumulated ; 5 per cent. of net profits for educational fund ; suppliers' dividends to shareholders and employees and at half rate to non-shareholders.

Dissolution : If no stock dividends are paid for three successive years five or more may apply to circuit court.

Use of word "co-operative" : Forbidden to organizations formed after passage of this Act and not complying with it.

WASHINGTON.

Non-stock :

Scope and purpose : Any lawful business except carrying on a business, trade or other undertaking for profit.

Number who may organize : Five or more.

Filing of articles of incorporation : With Secretary of State and county auditor of county in which principal place of business is situated.

Filing fee : As for stock corporations.

Management : According to by-laws.

Capital stock : Non-stock.

Voting : All members have equal power.

Dissolution : Upon written request of two thirds of the members.

Provision for existing organizations : To file statements with Secretary of State and county auditor after vote of a majority.

Capital stock :

Scope and purpose : Any lawful business.

Number who may organize : Five or more.

Filing of articles of incorporation and amendments : With Secretary of State and auditor of county in which principal place of business is situated.

Filing fee : \$25 to Secretary of State and 15 cents per 100 words to auditor. For amendments : \$10 to Secretary of State and 15 cents per 100 words to auditor.

Management : Not less than three directors. Officers shall be president, one or more vice-presidents, secretary and treasurer.

Issue of stock : When paid for in full.

Stock ownership : Not more than one fifth of stock.

Purchase of business of other associations : By a majority vote of a majority of the stockholders.

Voting : Each member one vote.

Voting by mail : Allowed if vote is accompanied by a written copy of the motion.

Distribution of profits : Capital stock dividends not to exceed 8 per cent. ; 10 to 25 per cent. of remainder of net profits to reserve fund ; suppliers' dividends and at half rate to non-members.

Annual report : To Secretary of State.

Provision for existing organizations : To file sworn statement with Secretary of State.

Use of word "co-operative" : Forbidden to corporations not complying with this Act.

WISCONSIN.

Scope and purpose : Any agricultural, dairy, mercantile, mining, manufacturing or mechanical business

Number who may organize : Five or more.

Filing of articles of incorporation and amendments : With Secretary of State and registrar of deeds in county in which principal place of business is situated.

Filing fee : \$ 10 to Secretary of State and 25 cents to registrar of deeds. For amendments \$5 to Secretary of State.

Management : Not less than five directors. Offices shall be those of the president, one or more vice-presidents, secretary and treasurer, of which the last two can be combined.

Stock ownership : Not more than \$ 1,000

Purchase of business of other associations : By a vote of a majority not more than 25 per cent. of capital may be thus invested.

Voting : Each member one vote.

Voting by mail : If copy of motion accompanies vote.

Distribution of profits : Stock dividends not to exceed 6 per cent. of net profits to reserve fund until 30 per cent. of paid-up capital stock is accumulated ; 5 per cent. of net profits to educational fund ; suppliers' dividends to stockholders and employees and at half rate to non-stockholders.

Dissolution : If no profits are paid for five or more years, five or more stockholders may apply to circuit court.

Annual reports : To Secretary of State.

Provision for existing organizations : To file sworn statement with Secretary of State.

Use of word "co-operative" : Not to be used as part of name of any corporation organized after passage of this Act and not complying with it.

WYOMING.

Scope and purpose : Agricultural, dairy, live stock, irrigating, horticultural, mercantile, manufacturing or industrial business.

Number who may organize : Five or more.

Filing of articles of incorporation and amendments: With Secretary of State and clerks of counties in which business is carried on.

Filing fee: As for corporations in general.

Management: Not less than three directors.

Issue of stock: When paid for in full.

Stock ownership: Not more than \$ 1,000 or one third of outstanding stock.

Voting: Each member one vote.

Voting by mail or proxy: Only if provided in by-laws.

Distribution of profits: May be revised by stockholders; capital stock dividends not to exceed 8 per cent.; not less than 10 per cent of net profits to reserve fund until 30 per cent. of paid-up capital stock is accumulated; suppliers' dividends to non-members may be provided for in by laws.

Annual reports: Statement to be kept on file with the secretary of the association.

Use of the word "co-operative": Forbidden to associations not complying with this Act.

ITALY.

COLLECTIVE FARMS.

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- SERPIERI (Prof. A.) and MAMI (Dr. G.) : *Collective Farms in Italy and in particular those of Labourers*, extracted from our issues (*Bulletin des Institutions Économiques et Sociales*, for September and November 1913).
- BELLELLI (Arturo) : *Il movimento operaio della provincia di Reggio nell'Emilia (The Labourers' Movement of the Province of Reggio in Emilia)*, Reggio Emilia, Cooperativa fra Lavoranti Tipografi ed Affini, 1918.
- CAMPANINI (Dr. N.) : *Relazione tecnica agraria sulla tenuta della Cooperativa Agricola di S. Vittoria (Agricultural and Technical Report on the Agricultural Co-operative Association of Sta. Vittoria)*, ibid., 1918.
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- LE AFFITTAZZE COLLETTIVE IN SICILIA E LA GUERRA (*The Collective Farms in Sicily and the War*), (Evidence as to these and criticism of them), Federazione Siciliana delle Cooperative, Girgenti, Tip. C. Formica, 1917.
- MOVIMENTO COOPERATIVO PARMENSE (*The Parmesan Co-operative Movement*), Federazione delle Cooperative di Parma e Provincia, Parma, Tip. Coop. Parmense, 1917.
- LA COOPERAZIONE AGRICOLA, organ of the Office for the Inspection and Assistance of Agricultural Co-operative Associations, formed by the *Istituto Nazionale di Credito per la Cooperazione*, Bologna, Nos. 5 to 9, 6 March to 1 May 1918.

§ 1. GENERAL CHARACTER OF ITALIAN COLLECTIVE FARMS.

These farms represent one of the most recent and characteristic forms of the agricultural co-operative movement in Italy. They are associations of agricultural labourers whose aim it is to procure for themselves the usufruct of the land they till. In most cases they attain this aim by securing a contract of lease, and hence the societies are known as collective lessees. In some cases they procure a contract which gives them a right to a half, third or other share of produce. They are always legally constituted as co-operative societies having limited or unlimited liability. In the province of Bergamo they take the form of civil societies having unlimited liability.

As the basis of the system on which the lands are managed there are the collective farms having a divided and those having a united manage-

ment. The former take over land from owners in the block and distribute it in small lots among their members. The latter cultivate land in common under a single technical and administrative management.

Those having a divided management have a numerical superiority, but as regards intensity of cultivation and perfection of technical methods it is those which have a united management which lead. On the latter work is done by turns ; and this plan represents an interesting attempt to lessen unemployment by a distribution of the available work among the members of the associations whose number almost always exceeds that which a farm requires.

Collective farms having a united management are predominantly of socialist and those having a divided management of Catholic inspiration, except in Sicily where all of them, whether Catholic or socialist, have a divided management.

The members of the associations are journeymen labourers in the case of the farms having a collective management, *coloni* or small owners in the case of those having a divided management. They do not, except in Upper Lombardy, live on the land they cultivate but in villages or small towns more or less distant from it.

The duration of the leases varies in the different cases from twenty-one to twenty-five years, and the lands taken are the property of the State, of corporations or of individuals.

The necessary capital is nearly always obtained by credit ; in South Italy from the special institutions granting agricultural credit, and in North Italy, where these institutions are lacking, in various ways, from institutions granting co-operative and other credit, from private capitalists, from buyers of agricultural produce, from the associations holding the farms in the form of advances, or from the members of these associations in that they concede that the payment of their wages shall be delayed.

Beyond farming the lands the associations usually exercise some complementary function to the profit of their members. They conduct collective purchases and sales, keep agricultural machines, manufacture cheese, practise the mutual insurance of live stock, and afford agricultural credit either as middlemen acting for the institutions to which the law entrusts this function or as autonomous deposit and loan funds.

Besides the economic activity which has been described, the associations holding collective farms practise a more or less intensive social activity to the advantage of their members, establishing technical schools and children's homes, and organizing occasional courses of lectures on agriculture and other subjects tending to popular education.

Their original aim in Sicily and Upper Lombardy was to eliminate the speculating middleman (*gabellotto*, *fittabile*), whose activity was having a more and more deplorable affect in raising prices. In Emilia and Romagna it was, as we shall see, to find an effective remedy for the unemployment of the agricultural classes which emigration had not lessened.

All that has been said holds good for collective farms in general. Com-

plete and recent statistics with regard to them are lacking (1), but data exist for some of their groups, especially for those formed among the Emilian labourers whose organization makes them the most interesting and the most fruitful of discussion. We will treat of them briefly in the succeeding paragraphs.

§ 2. THE COLLECTIVE FARMS OF LABOURERS.

The associations holding collective farms formed among labourers have spread especially in Emilia, where the traditional organization of agriculture is that represented by the system of *coloni*. It is not however the *coloni* but the journeymen workmen who have founded collective farms. It is this category of labourers, employed either on the small holdings to supplement the work of farmers or in those Emilian districts where there are as yet no small holdings or on large public works, who, especially about 1890, enjoyed the worst conditions as regarded wages. Hence, especially in the decade from 1890 to 1900, a defence was organized and thus a rise in wages was secured. However there followed on the rise in wages such a reaction affecting the technical organization of agriculture that the labourers, even where their strong organization had enabled them to dominate and monopolize the market for casual labour and where they could keep wages relatively high, did not succeed in avoiding a serious amount of unemployment. Therefore from their initial activity, which was purely defensive, they proceeded to undertake co-operative activity. By means of consumers' co-operative associations they strove to increase real wages in that they provided themselves with the means of subsistence at better prices; by means of producers' and labourers' co-operative associations, among which those holding collective farms became very important, they sought to realize the value of that labouring power which would without them have remained inactive. From such objects the system of the Emilian farms have derived some characteristics which deserve notice.

Usually they are constituted as limited liability co-operative societies and they procure land to cultivate by means of a contract of lease, or, as has already been noticed, by a contract giving a partial right to produce. Among the forms adopted that of a collective partnership should be noticed. A strict contract is here made between the manager of a farm and a group of labourers for the growing of a determined crop: they engage to execute all the necessary work and as payment they are granted a fixed share of the produce.

Some associations were constituted especially to take over farms; others already existed and had other functions (consumers' co-operative

(1) The Italian Federation of Agricultural Consortia published at Piacenza in 1906 the results of a general enquiry into collective farms in Italy. More recently the National League of Co-operative Associations (Milan) has undertaken an enquiry into the technical and administrative organization of these institutions and the results obtained by them, but owing to difficulties of various kinds this enquiry has not reached completion.

associations, especially in the district of Reggio; and labourers' associations, formed chiefly to execute public works, especially in the province of Ravenna). This explains the difference, often considerable, between the time at which an association was formed and that at which it began its farming enterprises. In some cases, however, this difference was due to a delay in finding the land to be tilled.

All labourers without distinction, both women and men, who receive wages are admitted as members. In some societies — in the co-operative associations of Reggio, for instance — small farmers and *métayers* are also admitted if they work for wages for at least half the year. Members always pay a small entrance fee and are obliged to subscribe for a given number of shares, which are most often paid for in instalments, weekly or monthly. Towards the partial or total payment of the amount of the subscribed shares sums are also detained from the profits which fall to each member at the end of the year. Thus, in order rapidly to increase the share capital, the profits which ought at the end of the year to be distributed among members are frequently employed to acquire shares on their behalf. It is also attempted to increase the share capital by yearly payments to a sinking fund fixed by the by-laws.

The following are extraordinary reasons for expelling a member from the co-operative association: the removal of his habitual place of residence from the commune or part of a commune where the association is situated; his permanent disablement for work; his failure to make payments for shares; his failure to register himself with the local defensive league and the labour bureau; his taking of land on lease on his own account; his joining of another society having aims like that of the association in question. A member may appeal against expulsion to the meeting or college of councillors. Generally the administrative council admonishes him or suspends for a determined period his exercise of his rights before it goes so far as to expel him.

Among the duties of members that of supplying the labour necessary to the co-operative enterprise is foremost.

All members, both men and women, have the right to vote at meetings; and these are competent to discuss and approve the balance-sheet of the previous financial year, to nominate officers of the society, and to deal with all matters placed on the agenda by a resolution of the administrative council or at the request of the committee of syndics or at least one third of the members.

The inspection of the society's management is in many cases exercised not only by the syndics but also, more or less completely, by the federal organs. The co-operative associations of the provinces of Reggio, Bologna and Ravenna are united, as we shall see, in provincial federations, which not only afford aid where trade and technique are concerned but also give help with regard to book-keeping and the revision of books.

We will give some particular information as to the more important groups of collective farms.

TABLE I. — *Collective farms of the Province of Reggio*

Name and situation of Society	Comune	Date of constitution	Number of members	Share capital			Various funds
				Subscribed	Paid-up	Reserve	
Agricultural Co- operative Society of the Tillers of the Soil of Campagnola. Itl.	Campagnola	4 February 1914	169	10,140.00	6,729.49	7,996.21	—
Agricultural Co- operative Society of the Tillers of the Soil of Fabbione. Itl.	Fabbione	20 Sept. 1904	450	17,976.00	17,416.30	91,850.23	9,528.8
Agricultural Co- operative Society of the Tillers of the Soil of Rio Saliceto. Itl.	Rio Saliceto	17 August 1904	203	11,560.00	10,228.50	6,892.44	9,088.7
Agricultural Co- operative Society of Novellara. Itl.	Novellara	25 March 1906	204	12,240.00	8,970.72	28,672.18	—
Labourers' Co- operative Society of Carreggio. Itl.	Carreggio	10 April 1910	80	8,000.00	6,946.60	1,420.46	287.6
Agricultural Co- operative Society of Santa Vit- toria Itl.	Gualtieri	25 Nov 1911	579	86,400.00	30,720.00		
Agricultural Co- operative Society of Santa Vit- toria Itl.	Gualtieri	20 February 1890	327	31,309.50	25,442.20	2,519.80	7,067.84 24,803.63

2,012 | 177,625.50 | 106,453.81 | 139,351.32 | 50,776.66

COLLECTIVE FARMS

owing a united management. Farming year 1915-1916.

Names of farms	Area in hectares	Rent in liras	Date of contract of lease	Value of stock in liras		Total yield in liras
				Live stock	Machines and implements	
	34.48 36.89 14.03 30.68 9.64	7,320.00 825 00 5,250.00 700.00	1904 1912 1912 1913	56,760.00	5,173.81	77,163.02
Casina Mazzucca Spagna Scortechini	27.46 69.40 — 35.00 80.00	8,270 00 8,800.00 — 4,000.00 8,750.00	1915 1909 — 1907 1903	49,416.00	21,637.52	213,754.32
	48.00 47.00 44.00	4,350 00 4,350.00 3,680.00	1904 — 1909	45,690 00	26,438.15	68,520.12
Sirona	62.53	8,038.00	1914	18,520.00	14,827.02	32,240.52
Cagrande	18.70	3,400.00	1911	9,200.00	2,000.00	22,476.99
Greppi holding in Aquila	353.09 32.14	freehold 5,700.00	1911 1914	150,990.00	43,981.55	247,517.87
Capanne Cavtona Madonna	42.69 33.50 33.60	— 13,158.04 —	1911 1912 1908	28,610.00	4,069.00	67,212.15
	1,052.83	86,591.04		359,186.00	118,127.05	72,8885.59

§ 3. THE COLLECTIVE FARMS IN THE PROVINCE OF REGGIO EMILIA.

In the province of Reggio Emilia a vast organization of labour is constituted by three groups of societies which have as their respective objects defence, co-operation and thrift. Defence is organized in rural and industrial leagues; co-operation is practised by labourers', consumers' and agricultural societies; and thrift by means of associations for mutual aid and other bodies.

The agricultural co-operative societies are not however merely elements formed for the purposes of this organization of labour. Their rise is strictly connected with the phenomenon of unemployment. The rise in the price of labour provoked in the province from 1901 a tendency among agriculturists in general, and especially among small owners and métayers, to make as little use as possible of casual labour, omitting all work not absolutely necessary and accomplishing the rest chiefly by means of their own families. Thence arose, especially in winter, an aggravation of the existing unemployment and a consequent weakening of the organization of labour and instability of the rates of wages secured. That the labourers should, as agricultural co-operative societies, directly rent land seemed a remedy very fit to be applied to this accentuated unemployment. From 1901 onwards, therefore, there were established the co-operative societies of Fabbbrica, Santa Vittoria, Campagnola, Rio Saliceto, Novellara, Gualtieri and others. All these procured land by taking it on leases of nine years, secured by high cautionary payments. In general such land was cultivated intensively, the crops being rice, wheat, maize, oats and vines, meadowland being included, live stock kept, and agricultural machines used to a notable extent.

The preceding table contains some data as to the farms of the province which have a united management and are the most characteristic and the most intimately connected with the general movement for the organization of labourers.

The staff employed by these co-operative societies is formed of members: a permanent staff, in receipt of yearly wages, consists of foremen who organize and direct the work, of persons who have charge of the live stock, of an expert who directs the farm and sometimes a secretary-accountant; and the casual labour is supplied by other members of the society who are called upon in turn to undertake the various kinds of work. Exceptionally, casual labourers who do not belong to the society may be added to them. The societies distribute the work so as to make the largest call upon members for labour when the demand on the part of private employers is lowest; and in other seasons they seek to place their members on privately owned farms.

Simultaneously with or soon after the development in the rice growing parts of the province of farms having a united management, societies holding collective farms having a divided management were in course of formation on the high plateaux and the slopes of the hills. The labourers

of a commune or a part of a commune united to take a large farm, preferably as societies having social objects, and divided it in lots proportionate to the families of the members and the area of the available land. These lots varied in area from one to one and a half hectares.

Simplicity of management and a small investment of capital characterize co-operative societies of this form, who in 1915-1916 held nearly 400 hectares of land distributed among seven of them. We have the following data with respect to them :

TABLE II. — *Collective farms of the province of Reggio, having divided management, in the farming year 1915-1916.*

Name	Number of members	Share Capital (liras)			Area farmed (hectares)	Rent in liras	Date of formation
		sub- scribed	paid-up	reserve			
Agricultural Co-operative Society of Aiola (Montecchio)	50	2,160	2,160.00	37.75	121.84	26,446.78	1905
Co-operative Society of Pieve Modolena (Reggio Emilia)	32	2,040	1,421.00	233.14	33.89	10,580.00	1912
Co-operative Society of Cella (Reggio Emilia)	34	4,080	2,047.19	158.81	29.22	5,050.00	1909
Bibbiano	273	6,552	6,039.62	—	24.54	4,448.85	1901
Roncoesi (Reggio Emilia)	24	?	?	?	20.45	5,850.00	1912
Cavriago	170	5,340	3,560.00	—	129.73	25,200.00	1904
Sesso (Reggio Emilia)	17	2,200	1,190.12	—	7.83	2,295.00	1915
Total	600	22,372	16,417.93	429.70	367.50	79,870.63	

The working of these co-operative societies is most simple. An administrative council sees that the terms of the letting contracts are observed by the concessionaries. Everything else is left to the personal initiative of members, each of whom makes use of his lot as he thinks best. The work of management is reduced to collecting the rent paid in quotas by the different members and delivering it to the landlord. To meet small expenses the rent is increased by a few liras a hectare.

It is impossible to furnish data as to the yield obtained by these co-operative societies and the wages they pay, for their land is divided into many small farms and there is no joint account-keeping. It may be assumed however, on the basis of approximate calculations deduced from averages, that the value of their total yield is somewhere round 400,000 liras, and that they pay as much as 150,000 liras in wages, the wages absorbed by one hectare of land being taken to be 300 liras.

Altogether therefore, the collective farms of Reggio reach a gross production worth about 1,200,000 liras and pay about half this sum in wages. They form part of the Federation of Co-operative Agricultural Associations of the Province of Reggio Emilia by means of which they acquire the primary materials necessary to agriculture. An agricultural office, charged

with the supervision and technical management of the federated societies, is annexed to this federation (1).

To conclude : the organization of the collective farms of this province is certainly among the best. There is here unusual cohesion among the labouring masses affected and an unusual consciousness of that transformation of personal values which the agricultural co-operative societies have occasioned. The farms indubitably alleviate unemployment, and they are a proof that the labourers have reached a stage at which they can themselves undertake agricultural enterprise and are prepared to take advantage of all the resources which modern science has made available for agriculture. These collective farms were, in fact, among the first to introduce mechanical ploughs, and all agricultural machines are used on them. They bring under cultivation land which has all but been abandoned ; they change the kinds of crops grown where this has never previously been attempted ; and, when their first reserves have been formed, they compete with private enterprise to obtain land to cultivate, reaping notable advantages. Typical examples are the co-operative associations of Fabbrico and Santa Vittoria, of which the latter acquired in 1911 a holding of 345.96 hectares for 774,422 liras and thus proved that it lacked faith in the future no more than tenacity and the spirit of initiative.

§ 4. THE COLLECTIVE FARMS IN THE PROVINCE OF RAVENNA.

The collective farms of the province of Ravenna form the most numerous and compact group. This province contains the three *circondarii* of Faenza, Lugo and Ravenna, of which the first is characterized by its prevailing hilly and mountainous land, while the two latter consist of uninterrupted plains extending to the sea over more than 1,200 square kilometres. It is on the plains that the co-operative movement has spread. Here are found lands organized in small holdings, lands recently improved and lands not intended for tillage. Of these three zones the first has an area of 73,643 hectares and is divided into small holdings farmed on the system of *métayage*. The lands recently improved occupy a total area of 17,841 hectares, and are either managed directly by their owners or let to agricultural contractors. The lands not intended for tillage cover an area of 14,604 hectares which comprises the pinewoods of Ravenna, meadows and pastureland of slight production, valleys where cane grows, and stony land along the coast.

Corresponding to the agricultural contracts and the systems of agriculture common in the two cultivated zones, the labour is shared by the stable peasantry — the *métayers* — and the casual labourers. The available employment is defectively distributed among these two classes, so that the casual labourers suffer very gravely and for long periods from unemployment.

(1) This federation recently acquired a holding of 350 hectares.

In Romagna emigration does not, as in other districts, modify the causes of unemployment; and the labourers' leagues have therefore planned a vast programme which has among its aims that of obtaining concessions of public works from the State, and from private persons wages which will allow of saving as a provision for periods of unemployment.

In order more quickly to carry out this programme, it was necessary to unite the defensive movement with economic institutions which would, by organizing the various groups of labourers, allow these to compete directly with employers, and by becoming contractors instead of wage-earners to replace employers. Thus there arose many co-operative labour societies and societies of agricultural production which improved the conditions of labourers and raised their standard of living. As to the co-operative societies farming lands in the province of Ravenna alone we have the following data. These societies are distributed in socialist and republican groups in accordance with the political party to which they belong; and therefore it sometimes happens that there are two collective farms in one place.

TABLE III. — *The agricultural co-operative societies farming lands in the province of Ravenna in 1917.*

	No. of Members	Area of Lands farmed in <i>torature</i> (1)	Value of average annual yield — Liras
a) <i>The Federal or Socialist Group:</i>	—	—	—
1 Federation of the Co-operative Society of Ravenna	—	4,611	800,000
2. Agricultural Co-op., Sobborgo Fratti & Garibaldi. . .	262	350	220,000
3. Agricultural Co op, Sobborgo Saffi.	100	267	80,000
4. Agricultural Co-op, Castiglione di Ravenna . . .	99	39	25,000
5. Agricultural Co-op, Campiano	145	375	110,000
6. Agricultural Co-op, San Bartolomeo	42	90	25,000
7. Agricultural Co-op, Santerno	76	139	39,000
8. Agricultural Co-op, Piangipane	217	1,062	300,000
9. Agricultural Co-op, Mezzano	322	799	225,000
10. Agricultural Co-op., Santo Stefano	81	198	51,000
11. Agricultural Co-op., Carraie	66	307	63,000
12. Labourers' Co-op, Ravenna	2,885	1,450	150,000
13 Labourers' Co-op., Castiglione Cervia	232	610	200,000
14 Labourers' Co-op, Massalombarda	363	516	250,000
15 Labourers' Co-op., Alfonsine	780	40	10,000
16. Labourers' Co-op., Sant'Alberto	616	180	45,000
17. Labourers' Co-op, Lavezzola	394	90	20,000
Total . . .	6,680	11,123 (3,708 hectares)	2,613,000

(1) 1 *toratura* = about $2\frac{1}{3}$ hectare.

	No. of Members	Area of Lands farmed in <i>tornature</i>	Value of average annual yield — Liras
b) Consortia or Republican Group :			
1. Autonomus Consortium of the Co-operative Societies of Ravenna	—	1,745	200,000
2. New Labourers' Co-operative, Sobborgo Fratti	790	892	230,000
3. New Labourers' Co-operative, Sobborgo Saffi	300	925	112,000
4. New Labourers' Co-operative, Ghibulio	135	165	30,000
5. New Agricultural Co-operative, Savio	85	56	9,000
6. New Agricultural Co-operative, Castiglione Cervia	136	154	17,000
7. New Agricultural Co-operative, S. Zaccaria	136	100	19,000
8. New Agricultural Co-operative, Sant'Alberto	237	210	40,000
9. New Agricultural Co-operative, Camplano	71	97	10,000
10. New Agricultural Co-operative, Cannuzzo	430	218	7,000
11. New Agricultural Co-operative, Cervia	163	120	40,000
12. New Agricultural Co-operative, Piangipano	237	122	30,000
13. New Agricultural Co-operative, Santo Stefano	124	58	9,000
Total	2,844	4,862 (1,621 hectares)	753,500

Summary.

a) 17 societies, members 6,680 — Area in hectares 3,708. — Annual yield 2,613,000 liras.

b) 13 societies, members 2,844 — Area in hectares 1,621. — Annual yield 753,500 liras.

Total: 30 societies, members 9,524 — Area in hectares 5,329. — Annual yield 3,366,500 liras.

Here also land is generally procured on leases, of from 9 to 12 years, security being supplied by cautionary payments. But another method is also followed, exclusively by some co-operative societies, and by others together with the preceding method. This second method is that of collective partnership, whether on the *métayage* or the third-share system, to which we have already alluded. The duration of arrangements of this latter kind is as a rule one year, sometimes two or three. They are most frequently applied where the cultivation of rice, beetroot or tomatoes is in question. Generally co-operative societies prefer leases only because they lack the capital needed by systems of partnership. Many kinds of crops are grown on the lands cultivated: rice prevails, but wheat, oats, maize, beetroot, tomatoes and meadowland are also found. The Co-operative Society of Massalombarda grows fruit and early vegetables for exportation on a large scale.

Live stock is little kept, for the area of meadowland is restricted and mechanical ploughing often takes the place of ploughing with animals. Machines and implements are largely used and also chemical manures.

§ 5. THE COLLECTIVE FARMS IN THE PROVINCE OF PARMA.

These farms are on the whole of recent date. Their chief aim is, as it is of those-elsewhere, to contend against unemployment which has become acute of late years owing to the diminution of public works. Although as yet they are not numerous it may be concluded that they will develop rapidly, for the first experiments have had good results as appears from the following figures taken from the balance-sheet for 1916 :

TABLE IV. — *The Collective Farms in the Province of Parma.*

	Years of consti- tution —	No of members —	Capital — Liras	Hectares —	Rent — Liras	Yield — Liras
Borgo S. Donnino .	1906	950	46,373.86	33.0000	5,000.00	17,670.56
Colorno	1912	463	27,854.29	104.9941	16,756.00	56,533.29
Fontanella . .	1914	380	50,335.35	95.5000	14,100.00	55,543.69
Ravadese . . .	1913	28	3,432.84	89.0000	16,174.45	57,631.45
Sissa	1913	131	23,981.51	106.2824	23,373.40	94,344.16
Total . . .		1,952	151,977.85	428.7765	75,403.85	281,723.15

On the 11th of last November two other agricultural co-operative societies became active, those of Soragna and Busseto. The former took on lease three farms, having an aggregate area of 148 hectares, for an annual rent of 23,500 liras. The latter took on lease one farm of 62 hectares rented at 15,000 liras a year.

In addition the Co-operative Society of Borgo San Donnino, the oldest and most important, has leased a nother holding of 33 hectares for 4,750 liras a year ; and in November 1918 that of Fontanella will take on the lease of an important holding of 94 hectares rented at 21,000 liras a year. These new undertakings account altogether for 337 hectares rented at 64,250 liras, and they bring the aggregate area collectively farmed up to 765.7765 hectares rented at 139,653 liras.

The first experiment in agricultural co-operation in this province is owed to the *Casa del Popolo di Borgo San Donnino* (The House of the People of Borgo San Donnino) whose scheme it was to distribute the yield of the land it farmed to its own members. It is worthy of mention that within three years the yield of this small farm was almost trebled, and that while its individual lessee had with difficulty maintained on it a single family of peasants the co-operative society today maintains three families on it in much better conditions. It is also pertinent to note that when the lease fell in the rent was doubled, and that the value of the land has much increased thanks to the co-operative society's skilled farming.

Another flourishing collective farm is that of Ravadese, which secured two holdings on lease in 1913 and which "healed the wound of unemployment" by ensuring continuous and remunerative work to about thirty

families. "Our chief cause for satisfaction" — to quote from the administrative council's report on the year 1917 (1) — "is that we were able to overcome the grave difficulties due to the war, succeeding, by means of the indefatigable help given by our women and children who worthily replaced the labour of their men absent on military service, in cultivating economically the holdings which we manage as collective farms". We think it is of interest to reproduce from this report the society's financial statement for 1917, which gives a concrete idea of its working and the results it obtains.

Financial Statement of the year 1917.

RECEIPTS				Amount — liras
Produce: Wheat.	70 <i>biolche</i> (2)	289.00	quintals	13,488 48
Maize	27	137.20	"	4,839.20
Forage	138	843 98	"	14,443.48
Tomatoes	6	280.38	"	4,344.33
Beetroot	9	702.70	"	2,513.10
Oats	8	25.00	"	882.27
Potatoes	2	66.10	"	1,203.22
Grapes		162.90	"	4,887.30
Beans		5.45	"	217.00
Wood		268.85	"	1,381.42
Cocoons				2,747.71
Milk		310.50	quintals	8,074.50
Profits of Warehouse				909.72
	260 <i>biolche</i>		Total . . .	59,931.73
Gross profits of live stock.				28,246.23
Various resources				4,379.58
			Total . . .	92,557.54

(1) *La Cooperazione Agricola*, Bologna, Nos 6-7, 10 April 1918.

(2) The Parmesan *biolca* is taken as approximately equal to $\frac{1}{8}$ hectare, but in reality $3\frac{1}{4}$ *biolche* are needed to make a hectare

EXPENDITURE.

Labour :

Members	45,540 hours at 0.80 ^{liras} an hour	36,432 —	Amount
Casual	19,375 " " " "	8,125.10	liras
Extraordinary		920	
Extra payments.		850	46,327.10
Manures, sulphur, sulphates. etc.			7,000.00
Ploughing, seeds and seeds of 1916 charged to 1917			4,530.15
Stock other than livestock replaced for 1917.			3,130.00
Threshing and pressing			1,263.32
Seed procured for 1918			359.20
Keeping of cocoons 1917			1,403.65
Packing, transport, painting, etc.			1,009.12
			<u>65,022.54</u>
Rent	17,523		
General expenses	7,172.48		
			<u>24,695.48</u>
	Total . . .	89,718.02	
	Net profit . . .	2,839.52	
			<u>92,557.54</u>

SOCIETY'S CAPITAL.

	Amount
	liras
Paid-up capital.	3,850.00
Reserve funds.	2,347.21
Thrift funds.	1,654.20
Total . . .	<u>7,851.41</u>

If these items of receipt and expenditure be compared with those recorded before the society holding collective farms was formed, it is found that today the holdings produce about three times as much as they did before such formation ; that 28 families live on them receiving wages at a rate far higher than the ordinary rate, while previously hardly five families lived on them with difficulty ; and that the landowner, who previously made a marginal profit of no more than 9,000 liras a year, corresponding to a rent of about 35 liras a *biolca*, now receives a rent of more than 65 liras

a *biolca*. This is proof that agricultural co-operation "beyond considerably improving the economic conditions enjoyed by tillers of the soil and healing the wound of unemployment, increases the revenue of landowners and the yield of the land".

The Co-operative Society of Fontanella is also important. It now leases three holdings and its chief merit consists in its introduction into them of great improvements, secured by an enormous expenditure on manures and by an organization of the land.

The Co-operative Societies of Sissa and Colorno work admirably in every respect, as regards both their management and their technique.

These notes suffice to show the importance which the movement represented by the collective farms seems to be destined to acquire in the province of Parma, where the agricultural co-operative societies recently constituted a provincial federation.

§ 6. THE COLLECTIVE FARMS IN THE PROVINCE OF BOLOGNA.

For this group of collective farms we have the data contained in the following summary which refers to twelve societies belonging to the Bolognese Provincial Consortium of Agricultural Co-operative Societies (1).

Outside this consortium there is the important Co-operative Society of Molinella which comprises some hundreds of members, and has obtained on its rice fields a yield of 90 quintals of rice the hectare, thus beating every other record in this particular. The Co-operative Society of Bolognina di Crevalcore, which has latterly attained to a certain development, also does not belong to the consortium.

The agricultural co-operative societies in this province generally procure land to cultivate by means of contracts of lease for a term of from four to twelve years, sometimes, in the case of rice fields, of one year only. Land-owners are secured by the product and therefore a cautionary payment is rarely made. The great majority of the lands are planted with rice.

The Bolognese farms are among those which have succeeded least well. A lack of good direction and management; a want of discipline among the members who have claimed from their own co-operative societies higher wages than those given by private persons; considerable risks

(1) This consortium united on 31 December 1917 fourteen co-operative societies, having a subscribed capital of 8,105 liras. In this year it took on lease from the management of the hospitals ten holdings having an aggregate area of 776 *torature* (a Bolognese *toratura* = 2080 square metres) for a yearly rent of 10,002 liras. The holdings were then ceded to the co-operative societies of Calcara and Piumazzo. Moreover in 1917, for the first time since it was formed, the consortium became active in the sphere of collective purchasing, supplying to eleven consorted co-operative societies more than 4,500 quintals of mineral and organic manures, about 40 quintals of fertilizers, 120 quintals of seed potatoes, more than 400 quintals of combustibles, and two tractors ordered by the co-operative societies of Anzola and Baricella. Finally it established the foundations of an office of accounts intended to keep the books of co-operative societies which have not the means to do this for themselves.

TABLE V. — *Co-operative societies belonging to the Provincial Consortium.*

	Year of constitution	Number of members	Area of land cultivated in <i>tornature</i> (= 2 080 sq. metres)
1. Agricultural Co-operative Society in Altedo (Malalbergo)	1906	724	860
2. Production and Labour Co-operative So- ciety of San Venanzio and San Vin- cenzo di Galliera	"	383	330
3. Agricultural Co-operative Society of San Pietro in Casale	"	693	807
4. Agricultural Co-operative Society of Medicina	1907	600	1,300
5. Agricultural and Labour Co-operative Society of Anzola Emilia	1910	209	916
6. Agricultural Co-operative Society of Crespellano and adjacent communes (headquarters in Calcare di Cre- spellano)	1914	51	922
7. Agricultural Co-operative Society of Tillers of the Soil in Minerbio	"	56	226
8. Agricultural Co-operative Society in San Giorgio di Piano	"	11	155
9. Agricultural Co-operative Society in Sant'Agata Bolognese	1915	11	1,236
10. Agricultural Co-operative Society of Budrio, (headquarters in Maddalena di Cazzano)	1915	17	593
11. Agricultural Co-operative Society of Tillers of the Soil in Baricella	1916	25	1,234
12. Agricultural Co-operative Society in Piumazzo di Castelfranco	"	10	338
Total		2,790	8,917 (1)

resulting on the almost exclusive cultivation of rice; high interest payable on debts; and much competition for the lands to be let account for the fact that in this province the agricultural co-operatives societies have obtained less good results than elsewhere.

§ 7. THE FACILITIES ENJOYED BY LABOURERS' CO-OPERATIVE SOCIETIES IN THE MATTER OF LEASING STATE LANDS.

We cannot conclude this article on the collective farms of Italy without noting that in response to a former resolution the decree-law No. 1676 (2) of 20 September 1917 has made opportune provision for facilitating the let-

(1) About 4580 acres.

(2) See *Gazzetta Ufficiale del Regno d'Italia*, Rome, No. 253, 26 October 1917.

ting of State lands to labourer's co-operative societies. The facilities in question allow leases of properties as to which private contracts may be made to be granted to agricultural co-operative societies and co-operative societies of labour and production on much more liberal terms than those which normally have force. Every limitation on the amount of rents has in fact been removed, and the duration of leases has been extended to nine years with permission to the government to extend them yet further where a lease involves an obligation on the lessees to execute works of improvement or specified works.

By the same decree special facilities were granted to co-operative societies in the matter of giving security and guarantees for the obligations they assumed, these securities being limited to a fit and proportionate sum which can be paid as an addition to the annual rent. It is hoped that these societies will thus be protected from easy exploitation by usurers or the necessity of obtaining large advances of capital, and from the consequent injury to the economy of their farms.

Finally the National Institute of Credit for Co-operation has indubitably contributed to giving a new and vigorous impulse to this original form of agricultural co-operation in Italy in that it has supplied societies with the capital they need; as has the Office of Inspection and Assistance of Agricultural Co-operative Societies with its care for their correct administrative and technical working; the Commercial Agency of Agricultural Co-operative Societies with its provision for their supply of machines, implements, manures and other material necessary to farming; and the National Federation of Agricultural Co-operative Societies (1) which has co-ordinated and regulated the movement in Italy for forming collective farms.

(1) For the origin and working of these four bodies see our earlier issues.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

BRITISH INDIA.

THE PROGRESS OF CO-OPERATION IN 1916-1917. — From *Statements showing Progress of the Co-operative Movement in India during the year 1916-1917*, official publication of the government of India.

The following tables show the general position of co-operative societies of all kinds in British India at the end of the financial year 1916-17. The figures do not include the province of Delhi, the North-West Frontier Province or Baluchistan, where the co-operative movement has as yet made little progress. Figures for the native States of Mysore and Baroda are included.

TABLE I. — *Number and membership of co-operative societies in all India.*

Kind of society	1906-07		1911-12		1915-16		1916-17	
	Number of societies	Number of members	Number of societies	Number of members	Number of societies	Number of members	Number of societies	Number of members
Central (including Provincial Banks and Unions), . .	14	2,774	120	11,361	605	53,078	757	84,141
Agricultural (including cattle insurance and reinsurance societies). .	740	54,469	7,562	324,860	18,051	717,163	21,070	784,576
Non-agricultural . .	89	33,601	495	67,097	1,019	148,195	1,209	176,708
Total . . .	843	90,844	8,177	403,318	19,675	918,436	23,036	1,045,425

The unions other than banking unions, that is to say the supervising unions, numbered 495 in 1916-1917 as against 361 in 1915-1916. In 1916-1917 the total number of banks was 262, as against 244 in the previous year; their total membership was 76,195, as against 47,776 in 1915-1916; and their working capital Rs. 480 lakhs as against Rs. 400 lakhs in 1915-1916. Their net profit increased to Rs. 8,68,705.

The number of agricultural societies, other than the societies insuring and reinsuring live stock (1), was 20,725 as against 17,729 in 1915-1916. Their members at the end of 1916-1917 numbered 784,252; their capital amounted to Rs. 596 lakhs; and their profits to Rs. 17,75,815, as against a profit of Rs. 6,56,379 made by the non-agricultural societies.

TABLE II. — *Number and membership of co-operative societies by provinces (1916-17).*

Province	Central (including Provincial Banks and Unions)		Agricultural (including cattle insurance and reinsurance societies)		Non- agricultural		Total	
	Number of societies	Number of mem- bers	Number of societies	Number of members	Number of societies	Number of members	Number of societies	Number of members
Madras	71	3,666	1,921	118,939	224	43,001	2,216	165,606
Bombay	30	2,561	1,095	80,762	182	47,695	1,307	131,018
Bengal	60	6,905	2,858	110,961	169	25,582	3,087	143,448
Bihar and Orissa	27	2,407	1,337	56,200	65	10,106	1,429	68,713
United Provinces. . . .	59	7,999	3,008	102,312	179	6,921	3,246	117,232
Punjab	41	4,473	3,417	129,544	37	4,228	3,495	138,245
Burma	211	4,465	2,310	46,263	54	5,002	2,575	55,730
Central Provinces	219	47,316	3,303	53,497	105	2,319	3,627	103,132
Assam	12	957	313	16,732	19	2,011	344	19,700
Coorg	—	—	34	2,781	—	—	34	2,781
Ajmer	5	1,072	372	12,848	—	—	377	13,920
Total (British India) . .	735	81,821	19,968	730,839	1,034	146,865	21,737	959,525
Mysore	18	1,992	812	45,021	144	27,893	974	74,906
Baroda	4	328	290	8,716	31	1,950	325	10,994
Total (Native States) . .	22	2,320	1,102	53,737	175	29,843	1,299	85,900
Grand Total	757	84,141	21,070	784,576	1,209	176,708	23,036	1,045,425

TABLE III. — *Working capital for all India.*

	1906 07	1911-12	1915-16	1916-17
	Rs.	Rs.	Rs.	Rs.
Share capital paid up	5,55,305	52,58,037	1,77,69,879	2,12,23,325
Loans and deposits from members	5,76,025	65,07,698	67,37,579	79,00,583
Do from individuals not members	6,56,992	88,39,777	3,35,33,561	3,88,37,126
Do from societies (1)	2,40,425	(1) 1,10,41,533	26,19,925	32,29,597
Do from Provincial or Central Banks	—	—	3,31,27,874	4,01,72,550
Do from Government .	2,84,738	9,34,663	15,98,705	17,24,859
Reserve fund .	58,598	9,92,454	78,79,626	92,04,138
Total . .	23,71,683	3,35,74,162	10,32,67,149	12,22,92,180

(1) Includes loans from Provincial or Central Banks

TABLE IV. — *Working Capital (by provinces) (1916-17).*

Provinces	Loans and deposits held at the end of the year from										Reserve Fund	Total	
	Share Capital paid up	Members		Individuals not members		Societies		Provincial or Central Banks		Government			
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			Rs.
Madras	20,48,564	12,61,155	72,87,488	8,25,664	82,17,605	9,795	8,48,450	2,04,98,851					
Bombay	21,17,958	27,86,883	34,81,716	4,72,259	27,10,357	2,14,374	5,29,631	1,23,22,178					
Bengal	18,74,415	13,57,481	55,78,204	1,68,472	50,56,217	59,680	10,66,977	1,51,61,446					
Bihar and Orissa	4,96,393	2,64,254	17,10,933	89,211	17,47,487	42,023	3,66,947	47,17,448					
United Provinces	21,39,339	1,54,312	44,47,954	37,006	39,96,245	28,907	12,37,123	1,20,40,886					
Punjab	59,44,752	8,86,857	45,67,846	8,02,224	45,87,603	1,33,766	29,68,374	1,98,30,422					
Burma	19,28,564	1,31,979	56,67,127	1,95,534	46,99,075	9,62,696	11,24,329	1,47,99,304					
Central Provinces	14,19,759	1,91,381	36,45,516	4,14,780	65,47,513	—	5,14,975	1,27,33,924					
Assam	1,10,244	1,74,002	3,72,833	38,742	2,27,251	19,885	1,18,151	10,61,108					
Coorg	53,721	15,527	16,768	5,980	—	1,683	29,791	1,23,470					
Ajmer	4,72,840	184	7,79,550	573	9,06,287	13,272	29,019	22,01,725					
Total (British India) . . .	1,86,06,749	72,24,015	3,74,94,935	30,50,445	3,87,04,640	14,86,081	88,33,897	11,54,00,762					
Mysore	25,17,086	5,08,234	10,83,357	1,48,692	12,33,230	38,673	2,34,737	57,64,009					
Baroda	99,490	1,68,336	2,58,834	30,460	2,34,680	2,00,105	1,35,504	11,27,409					
Total (Native States) . . .	26,16,576	6,76,570	13,42,191	1,79,152	14,67,910	2,38,778	3,70,241	68,91,418					
Grand Total	2,12,23,325	79,00,585	3,88,37,126	32,29,597	4,01,72,550	17,24,859	92,04,138	12,22,92,180					

CANADA

1. AMENDMENT OF THE AGRICULTURAL SOCIETIES' ACT OF SASKATCHEWAN —
The Agricultural Gazette of Canada, Vol 5, No 4, Ottawa, April 1918.

The Agricultural Societies' Act of Saskatchewan has been amended in order to provide for boys' and girls' clubs and farmers' clubs which will encourage the manual and domestic training of the young and promote the formation of school gardens and gopher and weed clubs. The minimum age of persons entitled to sign an application for the organization of an agricultural society has been changed from eighteen to twelve years. Persons may become life members of agricultural societies by paying \$ 15 to the funds of these ; and if fifty or more life members are secured by a society it will receive a grant equal to half the amount it has received as life members' fees.

Several changes have been made as to government grants. The membership grant is now 25 cents for each member of a society having a membership between 100 and 150, and 50 cents for each member of one having a membership between 150 and 200. To earn these grants societies must be represented at the annual agricultural societies' convention. A grant will be made of half the amount of the prizes paid in connection with competitions and agricultural shows and seed fairs. If a society which received its charter before 1 November 1917 has existed for less than five years, a grant will be made equal to two thirds of the amount of prizes paid in connection with exhibitions and competitions for the first five years for which this society is organized. A grant of not more than half the sums paid on providing speakers and not more than \$ 25 will be made to societies which hold at least five meetings for the dissemination of agricultural knowledge. The total amount of the grants, exclusive of the life membership grant, must not in any year exceed \$ 750, except in towns having a population of 3,000 where their limit is \$ 2,000.

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2. THE JUNIOR FARMERS' IMPROVEMENT ASSOCIATIONS IN ONTARIO — DUNCAN
(R. S.) in *The Agricultural Gazette of Canada*, Vol 5, No 4, Ottawa, April 1918.

In the past few years the district representatives of the Ontario Department of Agriculture have been conducting in their respective counties agricultural courses of from four to six weeks for farmers' sons between the ages of sixteen and thirty. Very encouraging results have been obtained, and the idea was formed of grouping these young men in permanent organizations. At the beginning of 1918 there were therefore 82 Junior Farmers' Associations in existence and their total membership was 1,521.

The object of these associations is to arouse a deeper, more permanent and more intelligent interest in all that pertains to agriculture in its broadest sense.

From the model constitution which has been drafted for an association further details can be gathered :

" 1. This association shall be known as the... Junior Farmers' Improvement association.

" 2. The object of the association shall be to create a deeper and more permanent interest in the agricultural life of the district : a) by the dissemination of agricultural learning among its members leading to improved farm methods ; b) by conducting competitions, such as the acre profit competition, in the production of field crops ; c) by conducting competitions such as the feeding of hogs for profit, dairy profit and baby beef competitions, in the production of live stock ; d) by arranging for live stock judging competitions at the local fall fairs ; e) by conducting simple experiments on the farm in cow testing, commercial fertilizers, spraying, pruning and thinning, under drainage, apiculture, poultry, etc ; f) by the introduction of better varieties of farm crops.

" 3. The officers of the association shall consist of a president, vice-president, secretary-treasurer, a committee of management and two auditors.

" 4. The association year shall commence the first day of March of each year.

" 5. The association shall hold at least two meetings each year, and, if possible, monthly meetings. The meetings shall be held at or near the place where the course in agriculture was conducted.

" 6. The membership of the association shall be limited to those who attended the course in agriculture arranged by the local Department of Agriculture

" 7. Any *bona fide* farmer under 30 years of age may become an associate member of the association.

" 8. Each member shall be notified in writing of all meetings of the association at least five days previous.

" An annual membership fee of 25 cents shall be levied "

* * *

3. THE ORGANIZATION OF CO-OPERATIVE LIVE STOCK MARKETING ASSOCIATIONS.—THOMPSON (W. W.), Superintendent of Co-operative Organizations, Saskatchewan Department of Agriculture, in *Farmer's Advocate and Home Journal*, Vol. LIII, No. 1326, Winnipeg, 20 February 1918.

With a view to encouraging agricultural co-operation, the Saskatchewan Department of Agriculture has drawn up a set of model by-laws which societies can use, modifying them to suit their local conditions.

The chief provisions of these by-laws are as follows :

1. All members who desire to market stock through the organization shall report to the manager the kinds of stock, and the number of each kind, which they desire to market, and the approximate date at which the animals will be ready to be marketed.

2. When live stock sufficient to make a full carload has been reported

as ready for market, the manager shall order a car and shall notify each member having stock listed of the date and hour at which such stock is to be delivered for loading.

3. In addition to performing the duties assigned to him by the constitution, the manager shall be at the stockyard on the dates and at the hours assigned for the delivery of stock, and shall receive, weigh and mark the animals and load them on the cars. He shall have charge of, and direct the sale of, all consignments, receive all money for them, and pay it to the consigners, less his commission and all other expenses incurred in making the consignment. When so directed he shall send the money by mail to the consigners. He shall furnish a statement to every consigner showing the net weight of his consignment, the price received for it, and the expenses incurred in marketing it. He shall keep on file all statements received from the commission firm selling the stock, and keep a record of the number of cars consigned and the amount of stock in them.

4. The manager shall receive as compensation for his services a commission of... cents per hundred pounds on the net weight at the final market of all stock marketed through the association, from which commission he shall pay for all extra help used in handling or loading the stock and defray any travelling expenses incurred in marketing the consignments. He shall however have the right to charge for any expenditure on foods, bedding, material for making partitions to separate the stock in the cars, etc.

5. Out of the receipts from the sale of every consignment there shall be deducted ...cents (three cents suggested) on every hundred pounds in weight of hogs or sheep, and... cents (two cents suggested) on every hundred pounds of cattle, and the amounts so deducted shall be placed in such chartered bank as the directors may direct, and shall constitute a fund to be used for paying losses that may occur through injury to stock in the association's hands, or to buy office supplies, postage stamps, or such equipment as the association may require.

6. Any consigner whose stock has been accidentally injured while in the hands of the association shall receive for it the full price as though it had not been injured, and shall be liable for the regular rates of expense on the consignment. The payment of damages shall be based on a statement made by the commission firm having charge of the sale of the consignment, which statement shall show the amount received for the injured animal and the amount which would have been received for it had it not been injured. No damages shall be paid for an animal not in a healthy condition when received at the local yards by the manager.

7. Animals will be accepted from and sold for non-members upon the same conditions as members, except that double insurance fees will be charged on them.

The Saskatchewan Department of Agriculture has also arranged to supply stock marketing associations with forms or which to record their business for one year.

UNITED STATES.

THE ACTIVITY OF THE JEWISH AGRICULTURAL AND INDUSTRIAL AID SOCIETY
IN 1917 (1). — From the society's annual report for 1917.

In conformity with the wishes which were expressed by the government of the United States even before the country entered the war, the Jewish Agricultural and Industrial Aid Society has, like other organizations which have agricultural development as their object, made every effort to induce its members to increase their production of foodstuffs. It has met with success. Jewish agriculturists have obtained, in particular, abundant potato and maize harvests.

The Farm Loan Department did a large business. During 1917 the loans which it made numbered 389, as against 386 in 1916. They included however 74 loans made in the spring as a war measure to enable farmers to increase planting by buying seeds and fertilizers. The deduction of these loans makes the number granted in 1917 less than in the previous year. The fact is an evidence of the stronger financial position of the farmers and the better facilities for credit. It is partly to be imputed to the activity of the Federal Land Banks which have rendered first mortgages at reasonable rates of interest possible. The loans granted by the Jewish Agricultural and Industrial Aid Society in 1917 amounted to \$ 209,453 as against \$ 229,827 in 1916. On 31 December 1917 outstanding loans amounted to \$995,085. Repayments on farm loans in 1917 amounted to \$202,665, or \$20,503 more than in 1916 and much more than in any previous year.

The following table shows the purposes for which loans were chiefly granted :

Purpose of loans	Number of loans	Percent.
Purchase of a farm.	29	7
Purchase of equipment.	113	29
Buildings and repairs of buildings	43	11
Paying off of mortgages and other debts	108	28
Working capital	96	25
Total .	389	

Of the 389 loans granted in 1917, 32 were made on first mortgages, 157 on second mortgages, 83 on third mortgages, 20 on fourth mortgages, 3 on fifth mortgages, 6 on chattel mortgages or other collaterals, 14 on the purchase contracts of farms bought from the society. The remaining 74,

(1) See our issues for September 1915 (*Monthly Bulletin of Economic and Social Intelligence*) and May 1917.

which were on unsecured notes, were the loans for seeds and manures to which we have already referred.

The Farm Labour Bureau met with more success than in 1916. It placed 1,529 men as against 1,466 in 1916. In its ten years of existence it has placed altogether 8,527 men.

The Co-operative Purchasing Bureau secured a turnover of \$18,530, namely over \$4,000 more than in 1916.

The campaign for the organization of National Farm Loan Associations under the Federal Farm Loans Act brought about real results, for it was instrumental in the foundation of 19 associations in New York, Massachusetts, Connecticut and New Jersey. These associations have altogether 360 Jewish and other members who applied in 1917 for loans amounting to \$1,085,685. Seven of these associations had received charters on 31 December 1917. Three further National Farm Loan Associations were organized, in Connecticut, New Jersey and Pennsylvania, respectively, on the initiative of the farmers themselves.

The society nourishes the co-operative spirit among its members thus both maintaining existing co-operative associations in good condition and encouraging the foundation of others. The Co-operative Fire Insurance Company of Sullivan and Adjoining Counties, New York, had altogether \$1,314,110 of insurance in force in 1917. The Colchester (Connecticut) Farmers' Produce Company, which also was founded by Jewish farmers, had a turnover of about \$50,000 in 1917.

BRITISH INDIA.

During 1916-17 the operations of the co-operative cattle insurance societies became more important. The total insured value passed from Rs. 3,01,775 in 1915-16 to Rs. 3,10,663 in 1916-17. Moreover the number of societies which was 321 in 1915-16 was 344 in 1916-17.

The following table resumes the situation of these co-operative societies in the different provinces :

	Bombay	Bengal	United Provinces	Burma	Coorg	Total 1916-17	Total 1914-15
Number of societies	(1) 4	1	5	324	10	344	321
Insured value	Rs —	45	1,207	3,04,848	4,563	3,10,663	3,01,775
Premiums collected	—	9	33	15,758	4,606	20,406	14,069
Supplementary contributions collected	—	—	—	—	2,084	2,084	1,588
Number of animals:							
1) insured	—	2	67	9,135	565	9,769	8,821
2) lost	—	—	2	146	143	291	187
Claims paid	—	—	—	Rs 3,517	1,604	5,121	1,749
Cost of management	5	—	—	529	—	534	255
Funds in hand at end of year	45	26	705	18,477	5,086	24,339	15,943
Amount of risk reinsured .	—	—	—	Rs 1,43,320	—	1,43,320	1,13,180
Premiums paid for reinsu- rance	—	—	—	7,656	—	7,656	4,022

(1) Engaged in collecting capital.

Burma, as is seen, leads where the co-operative insurance of cattle is concerned, for 324 out of the 344 societies are in this province. As regards the business done by the central reinsurance societies all available information is condensed in the following table.

TABLE II. — *Central reinsurance societies (Burma).*

	1916-17	1915-16
Number of societies	1	1
Number of affiliated societies	324	305
Proportion of risk of affiliated societies reinsured	$\frac{1}{2}$	$\frac{1}{2}$
Amount of ris reinsured	Rs 1,43,320	1,13,030
Premiums collected	" 7,656	4,022
Number of animals covered by affiliated societies	6,388	6,209
Number of animals lost	1,46	37
Claims paid to affiliated societies	Rs 1,144	247
Cost of management	" 390	148
Funds in hand at end of year.	General fund	" 5,361
	Reserve fund	" 1,513
Government subscriptions, loans, etc	—	—

CANADA

INSURANCE AGAINST HAIL IN SASKATCHEWAN IN 1917 (1). — *The Public Service Month*, Vol. VI, No. 7. Regina, February 1918.

A statement of the income received in premiums and of the indemnities paid in 1917 by the various companies underwriting insurance against hail in the province of Saskatchewan has been prepared by the Superintendent of Insurance. It shows that \$2,203,492.27 were received as premiums for insurance of this kind while the indemnities paid amounted to 33.8 per cent. of that sum or \$744,902.45. We reproduce figures, which are subject to correction, for the various companies.

(1) Cf. our issues for May 1917, pp. 37-48; August 1917, p. 25; November 1917, p. 27.

Company	Premiums	Losses
Acadia Fire Insurance Company . . .	\$ 60,905.68	\$ 11,828.34
British America Assurance Company .	69,446.20	20,570.21
British Crown Assurance Corporation .	308,372.81	51,373.93
Canadian Indemnity Company	145,832.86	32,593.98
Canada Hail Insurance Company . . .	49,475.97	12,359.30
Canada Security Insurance Company .	112,258.60	13,800.49
Connecticut Fire Insurance Company .	102,696.79	32,827.91
Dominion Fire Insurance Company . .	77,489.97	17,117.09
Excess Insurance Company	192,075.00	47,963.11
Great North Insurance Company . . .	89,449.00	19,491.73
Home Insurance Company	293,603.86	64,787.73
Hartford Fire Insurance Company . .	182,332.57	71,506.28
Middle West Insurance Company . . .	54,282.01	12,633.65
Nova Scotia Fire Underwriters . . .	47,279.39	11,320.87
New York Fire Underwriters	55,836.77	46,515.80
Rochester Underwriters	94,334.33	20,208.40
St. Paul Fire and Marine Insurance Company	109,032.25	100,583.94
Winnipeg Fire Underwriters	23,355.16	2,320.43
Westchester Fire Insurance Company .	135,434.05	26,344.00
	\$2,203,493.27	\$744,902.45

If to these figures be added those representing the payments, amounting approximately to \$930,000, made to the Municipal Hail Commission, and the claims for \$830,000 which this commission paid, it is seen that in 1917 protection against hail cost the people a little more than three million dollars and that they received one and a half million dollars in indemnities.

Figures published by the Insurance Department of Alberta show that in that province, where the premium rate is much higher than in Saskatchewan, the hail companies received \$1,786,101.02 and paid out \$1,148,438.75.

SWITZERLAND.

1. THE INSURANCE OF PIGS IN THE CANTON OF VAUD. — *L'Agriculture ticinoise*, Locarno, 23 March 1918, No. 12.

In January of last year a society insuring against mortality among hogs was founded in the canton of Vaud; and within the first year, which ended on 24 February 1918, the usefulness of this institution and the favourable reception accorded to it and to the services it rendered had become clear. If a casualty occur the member who suffers is reimbursed for the whole product of the animal he loses to the extent of at least 80 per cent. of its value.

The society's turnover in its first year of business amounted to 120,000 francs.

Every member is bound to pay an entrance fee of 50 centimes for each of his pigs. The insurance premium is one franc a year for pigs kept for fattening, 5 francs for these kept for breeding.

In view of the excellent results of this experiment the foundation of similar societies insuring pigs in other cantons is to be anticipated.

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2. COMPULSORY INSURANCE OF LIVE STOCK IN 1916. — *Chronique d'agriculture et d'industrie laitière* Fribourg, 20 October 1917.

During 1916 there was compulsory insurance in 178 circles and it covered 78,152 heads of insured live stock. Since voluntary insurance in seven circles covered 1,358 heads of live stock, there were altogether 79,505 heads of insured cattle which benefited by the State subsidies.

The data as to insurance in the circles in which it had been declared to be compulsory are as follows :

Animals insured	78,152	
Value of insured animals		Fr. 47,713,973 —
Animals lost	1,971	
Value of lost animals		" 1,083,192 —
Product of the skins etc.		636,649.98
Indemnities allotted		" 158,447.63
Premiums of the insured		" 85,077.88
Expenses of administration		" 22,343.88
Cantonal and federal subsidy		" 117,228 —

The data as to insurance in the circles in which it was voluntary are the following :

Animals insured	1,353	
Value of insured animals		Fr. 749,610 —
Animals lost	45	
Value of lost animals		" 23,500 —
Product of the skins etc.		" 13,839.60
Indemnities allotted		" 4,932 —
Premiums of the insured		" 1,972.41
Expenses of administration		" 643.50
Cantonal and federal subsidy		" 1,014.75

The comparison of these data gives the following conclusions :

Comparative data.

	Compelled Circles	Free Circles
Mortality.	2.52 %	3.33 %
Product of the skins etc. (% of the insured value)	58.78 %	58.89 %
Average rate of premium for 100 francs of insured value	0.18 fr.	0.25 fr.
Expenses of administration per head	0.29 »	0.47 »
Indemnities allotted.	158,447.63 »	4,932.— »
Subsidies.	117,228 — »	1,014.75 »

In the 185 circles in which the insurance was active the expenses (indemnities to the insured and expenses of administration) amounted to 186,358.01 francs, and 205,293.04 francs were received in subsidies and premiums.

This result was obtained in the circles compelled to insure by means of an average premium of 18 centimes for every 100 francs of insured value, while in the circles where insurance was voluntary the average rate of the premium was 25 centimes.

The circles were distributed as follows over the various districts :

Compelled Circles.

	Circles	Animals	Subsidies
Sarine.	46	17,700	26,550 — Fr.
Singine	30	21,449	32,173.50 »
Gruyère.	18	7,871	11,806.50 »
Lac.	26	12,500	18,750 — »
Glâne.	14	5,568	8,352 — »
Broye.	39	11,949	17,923.50 »
Veveyse.	5	1,115	1,672.50 »
Total . . .	178	78,152	117,228 — Fr.

Free Circles.

	Circles	Animals	Subsidies
Gruyère.	2	262	275.50 Fr.
Glâne.	4	557	417.75 »
Veveyse.	1	434	325.50 »
Total . . .	7	1,353	1,014.75 Fr.

Recapitulation.

	<u>Circles</u>	<u>Animals</u>	<u>Subsidies</u>	
Sarine.	46	17,700	26,550 —	Fr.
Singine	30	21,449	32,173.50	"
Gruyère	20	8,233	12,078 —	"
Lac.	26	12,500	18,750 —	"
Glâne	18	6,125	8,769.75	"
Broye.	39	11,949	17,923.50	"
Veveyse.	6	1,519	1,998 —	"
Total . . .	185	70,505	118,242.75	Fr.

In four circles no losses were found to have occurred among the live stock. In 61 the subsidies sufficed to pay all the indemnities assigned.

Part III: Credit

EGYPT.

DISTRIBUTION OF COTTON SEED TO CULTIVATORS.

SOURCE :

THE AGRICULTURAL JOURNAL OF EGYPT, Vol. VII, pp. 154 to 170 and 222. Ministry of Agriculture, Government Press, Cairo, 1917.

We noticed in 1917 an attempt on the part of the Egyptian government to distribute cotton seed in order to counteract the reduction in the production of cotton, which was causing uneasiness, by weakening or removing its causes (1). We observed that if the experiment gave the expected results the distribution would be improved and would be extended so as to include a larger part of the country and more numerous kinds of seeds. It was decided to close the financial account of the distribution every five years ; and for the first quinquennial period, that from 1911 to 1916, it is possible now to give the figures. These shew how useful is this method of granting credit for short terms to small cultivators.

After the experimental distribution of 1910-1911, distributions of two kinds were made during the following years : an ordinary distribution of good seed to small cultivators, and a distribution within the State Domains of selected seeds to the largest and most careful cultivators in the country. This latter distribution was discontinued in 1915-1916, but the supply to the small cultivators, who were most in need of this measure of thrift, was fortunately continued.

The following figures show the importance of these distributions :

	1911-12 ardebs (2)	1912-13 ardebs	1913-14 ardebs	1914-15 ardebs	1915-16 ardebs
Ordinary distri- bution . . .	39,578	81,937	126,152	44,630	81,321
Distribution in State Domains.	2,395	6,209	2,513	1,146	—

The interruption of the distribution of seed to the large cultivators in the State Domains had therefore, relatively, only a slight importance. It nearly doubled between 1912 and 1913 ; but almost at once afterwards a series of difficulties arose by which it was very much impeded. We will

(1) See our issue (*Bulletin des Institutions Économiques et Sociales*) for March 1912.

(2) Ardeb = 5.445 bushels.

refer to it later in order to explain the manner in which the system it represents should develop. As regards the ordinary distribution, it has dealt with a quantity of seeds which was more than tripled in the first three years but was inevitably modified by the outbreak of war. However this distribution will certainly be maintained: it is seen that in 1915-1916 it had already recovered to some extent from the shock of the war, for in this year as much was distributed as in 1912-1913. This is a sure sign that the government's plan supplied a need. As gradually the cotton area returns to its normal dimensions the distribution of seed will regain its importance, for it has not lost any of its popularity among cultivators.

The scheme for the ordinary distribution is an outcome of the improvidence of the *fellahin* (1). They usually buy very inferior seed, merely because it is cheap; and the inferior quality of the cotton seed sown has been a main cause of the complaints made by spinners as to the quality of Egyptian cotton. It was a chief preoccupation of the Ministry of Agriculture, so soon as it was constituted a department, to ensure that the *fellahin* should use better seed; and it was as the only means of attaining this object that the government undertook State distribution.

The ideal scheme would have been to provide the *fellahin* with specially selected seed; but this would have been very costly and would, in view of the *fellahin*'s predilection for cheap seed, have entailed considerable loss for the government. Moreover there was not a sufficient supply of selected seed in the country to allow of its distribution on a large scale. The Ministry of Agriculture decided, therefore, merely to supply the *fellahin* with better seed than they had previously obtained, at a more reasonable price and on less onerous terms.

The needy state of the *fellahin* masses prevents them from paying cash for their agricultural requirements, and in the past they had to obtain seed for their holdings on whatever terms the small dealers imposed on them. It was therefore decided that the government could most usefully distribute cotton seed on credit; and it is on this principle that the distribution has been carried out, the cost of the seed being collected in the autumn after it is distributed, at the same time as the instalment of the land tax then due.

It was further decided to restrict the distribution on credit to the smaller *fellahins*, that is to those planting 15 feddans (2) of land or less, for it is this class of the rural population which predominates among the landholders and cultivators of cotton in Egypt and is most at the mercy of unscrupulous seed dealers.

The plan followed has been that of buying seed which has been passed by the agricultural inspectors, who report to the ministry just before the crops are picked as to those of them from which they think it desirable to take seed. The ginners are then requested to meet the ministry's demands as far as possible with seed from the selected estates and to provide the balance from other approved lots of cotton. The inspectors see that this is

(1) *Fellahin* = native cultivators.

(2) A feddan is roughly equivalent to an acre

done, and are present at the ginning, bagging and final sealing up of the sacks.

During the first three years of the quinquennial period under consideration the government confined itself to purchases from the more important ginneries ; but in the succeeding two years it was forced also to buy from the smaller ginneries, because the latter, tempted by the prospect of a rise in the price, had bought up most of the better class cotton, paying fantastic prices. The large Alexandria houses, refusing to compete in conditions which they considered too speculative, had confined their purchases mainly to ginned cotton offered for sale in the Alexandria market. This cornering of the better crops by the small dealers did not affect the quality of the seed distributed under the ministry's scheme, but considerably increased the work of the inspectors.

The seed is distributed to the cultivators through the *halagas*, that is the eighty-five government cotton markets controlled by the Provincial Councils. When the scheme was first put into practice the actual distribution was effected through the Egyptian Markets Company, which received a commission first of 10*d.* and then of 7 ½*d.* per ardeb. But the system of the *halagas* was introduced in 1912-1913, and it was decided to distribute the seed through them. A first experiment was successful and the entire distribution has devolved on this organization. The cost to the government is somewhat more than it would have been under the original plan, but this is justified by the assistance derived by the *halagas*.

Seed is distributed on credit to all landowners who pay a land tax of 7*s.* 6*d.* per feddan or more and the amount of whose land tax exceeds the cost of the seed for which they apply. The maximum given to each holding is 5 ardebs, which is enough for 15 feddans, whether the landlord cultivates directly, or, partially or entirely, through tenants. In the latter case he undertakes to pay the cost of the seed himself, and its price is entered against him in the tax books and paid when the other payments for seed are collected exactly as though he had himself used the seed supplied. The payments are collected, together with the instalments of the land tax, by the *sarrafs* or the village tax collectors who depend on the Ministry of Finance.

No cotton seed is given to any landowner who has not paid on or before 31 December for the seed he took on credit in the previous season. The *sarrafs* are expected to see that applications are accepted only from cultivators who are of good repute ; and they receive, by way of encouragement, a commission of 5 ½*d.* per ardeb if they collect the value of the seed from the applicants.

At the beginning of the season circulars of instructions as to the manner in which the distribution is to be carried out are sent by the Ministry of Agriculture to the '*Omdas*, or heads of the sections of districts or villages, and their assistants, called *Sheikhs el Balad* ; and also, by the Department of Direct Taxes under which the cost of the seed supplied on credit is collected, to the *sarrafs*. The '*Omdas* hold periodical meetings of the villagers to whom they explain the scheme ; and the inspecting staff of the Ministry

of Agriculture systematically visits the villages in order to see that the cultivators receive any further explanations which may be necessary. The following table shows how extended is the area over which the distribution now takes place.

Mudiyya (Provincial Administrative Centres)	Total Number of villages	Number of villages taking cotton seed	
		1911-1912	1915-1916
Beheira	389	133	228
El Gharbiya	530	171	221
El Daqahliya	425	252	296
El Sharqiya	388	148	249
El Minufiya	305	250	268
El Qalyubiya	154	100	99
El Giza	179	71	53
Beni Suef	173	76	100
El Faiyum	124	90	46
El Minya	260	133	93
Asyût.	313	57	116
Girga	246	9	--
Qena	143	2	--
Aswân	74	—	—
Total.	3,712	1,501	1,776

It is seen that out of 3,712 villages in Egypt applications were received from 1,501 or 40 per cent. in the first year of the distribution, and that this number had increased to 1,776, or roughly 40 per cent., in 1915-1916.

It must however be borne in mind that five of the seven *Markazs* or administrative districts in the province of Asyût, and the three *Mudiyyas* or provincial administrations to the south of Asyût, do not cultivate cotton. Taking this into account, it is found that 54 per cent. of the villages in the cotton growing districts of Egypt take seed from the government.

In the first year, 1911-1912, the seed, delivered at the nearest *halaga*, was distributed at 21s. 10d. an ardeb; but the sack, which was officially stamped, had to be returned. In 1912-1913 the price was fixed at the same level but the cultivators were allowed to retain the sacks. In 1913-1914 the general rise in the price of commercial cotton seed, which of course influences that of seed for sowing, necessitated a rise to 23s. 10d. an ardeb in the price at which the seed was distributed. It was delivered at the *halagas* as before and the cultivators might still retain the sacks. For 1914-1915 the ministry had obtained options, at relatively low prices, on a substantial supply of sowing seed, which it was intended to distribute at a price low as compared with that of the commercial seed. But with the outbreak of war the price of sowing seed dropped, and the restriction of the cotton area caused the demand for it to fall. The government had therefore to reduce its selling price below cost. The seed was actually distri-

buted at 18s. 9d. an ardeb, or 3s 1d. an ardeb less than its cost the ministry. In 1915-1916 the market again rose very considerably, and the government's sale price had to be fixed at 29s. 2d. an ardeb, all former conditions being retained. As the limitation on the cotton area was removed and the market resumed a relatively normal course, no difficulty was experienced in distributing at this price.

The value of the seed distributed during the quinquennial period under review was L. E. 403,997 (1), and of this sum only L. E. 61 was still an outstanding debt on 31 March 1917. Practically the whole of this debt had been incurred in the last year; and therefore the distribution was as successful financially as it was agriculturally. The prompt repayment of the price of the seed reflects favourably on the economic condition of the cultivators, most of whom are small cultivators, and shows that the *sarrâfs* did their part of this distributing work efficiently.

From time to time, but every year less frequently, there are complaints as to the quality of the seed supplied by the department. In every case investigation has shown that such complaint has come from an interested quarter, either from the *omda* who himself purveyed the seed and was often the agent of the local merchant and who consequently found that the ministry's better and cheaper supply interfered with his lucrative trade, or from the *fellâh* who had hoped for such perfected seed as would render the precautions usually and properly taken in cultivating the crops unnecessary. Too great emphasis cannot be laid on the fact that the ministry does not pretend to supply only the best selected seed to the *fellâh*. It attempts only to distribute the good seed which it takes the utmost care to procure.

It is a moot point whether the plan of distributing specially selected seed to the cultivators is economically sound. Such seed is of real value only when it is used by cultivators sufficiently intelligent to appreciate its purpose and adapt their methods to the new conditions it entails. Experience has shown that whether the *fellâh* has handpicked, specially selected or ordinary seed he follows his old methods; and there is therefore serious wastage of good material if handpicked or selected seed be given him. For the present the government is attempting only to distribute ordinary seed of good origin, which has been carefully sifted by the ginners. It is hoped that by the time the requisite quantity of good seed is annually forthcoming, the government farms and other means of ocular demonstration will have taught the *fellâh* to bring their methods better into line with the new order created by a distribution of selected seed.

The table on page 403 shows that whereas the total area under cotton decreased in 1911-1912 and 1915-1916 by 4 per cent., the area under cotton for which the ministry provided seed was more than doubled; and that the percentage of the total cotton area which the ministry's distribution of cotton seed supplied was 14.74 in 1915-1916 and only 6.90 in 1911-1912.

In conclusion we must refer to the causes for the abandonment of the

(1) L. E. = 20s 6d.

(Comparison between whole areas cultivated, whole areas under cotton, and whole areas sown with government seed in 1911-1912 and 1915-1916 (areas given in feddans))

Mudanya	Area cultivated by province		Area under cotton		Area sown with government seed		Percentage of cotton area sown with government seed	
	1911 1912	1915 1916	1911-1912	1915 1916	1911 1912	1915 1916	1911 1912	1915 1916
LOWER EGYPT								
El Bahariya	839,375	872,695	242,862	240,871	13,194	48,810	5.43	20.26
El Gharbiya	1,373,200	1,313,050	433,410	414,240	17,166	41,550	3.96	10.00
El Daqahliya	774,240	768,018	261,414	238,971	24,816	46,407	9.49	19.42
El Shariya	805,128	800,115	217,721	212,189	9,777	32,871	4.49	15.49
El Minufiya	558,611	506,195	125,949	118,454	21,789	25,722	17.30	21.71
El Qalyubiya	279,385	301,255	64,880	65,141	5,076	6,858	7.82	10.52
Governorates	1,433	2,079	18	—	—	—	—	—
Total for Lower Egypt	4,631,384	4,624,037	1,346,254	1,289,869	91,818	202,218	6.82	15.68
EL GIZA.								
	201,441	267,132	44,958	32,739	2,904	2,649	6.46	8.09
UPPER EGYPT								
Beni Suef	319,367	318,875	75,567	72,892	4,293	11,883	5.08	16.30
El Fayyum	543,469	573,223	80,511	80,058	4,743	4,215	5.89	5.26
El Minya	535,859	540,584	120,734	122,743	11,445	10,386	9.48	8.16
Assyut	506,312	513,070	47,114	50,818	3,141	12,609	7.30	24.81
Garga	367,809	378,046	2,751	3,392	54	—	1.90	—
Qena	421,372	407,273	3,587	2,293	36	—	1.00	—
Aswan	94,275	92,928	339	708	—	—	—	—
Total for Upper Egypt	2,788,463	2,823,999	330,603	332,904	24,012	39,096	7.26	11.74
Grand total	7,681,288	7,715,165	1,721,815	1,655,512	118,734	243,913	6.90	14.71

distribution of seed in the State Domains. The scheme for this, initiated when the ordinary distribution was extended to the whole country, was that the State Domains should annually place at the ministry's disposal a certain quantity of sowing seed from the crops produced on them. This seed was to be distributed to the large cultivators, and 50 per cent. of the resultant seed, known as " Domains seed ", was to be recoverable by the ministry. The " Domains seed " was to be sold, on the same condition, to medium cultivators, and the so-called " Domains seed fellâhi ", obtained from them as 50 per cent. of the resultant seed, was to be distributed under the ordinary scheme, being sold to small cultivators on credit or for cash.

This scheme was applied for the first four of the five years under review, but was dropped in the last year because it was found that no results could be obtained from it which justified the trouble it entailed.

The failure was due in the first place to the large landowners' lack of public spirit. The seed was not offered at a high price and unreasonable conditions were not imposed ; but the large cultivators preferred to buy seed elsewhere and to be completely free to dispose of their resultant crops, rather than to contract to hold 50 per cent. of the seed they obtained at the ministry's disposal. Secondly many purchasers of the Domains seed proved to be unsatisfactory although reputedly they were good cultivators, and it was found impossible to hope for the return of a great portion of the amount of seed due. As to buying back the Domains seed, the attitude of the ginner made this impossible on any terms which would have enabled the ministry to sell it at attractive prices to the medium cultivators.

In this connection therefore a whole problem of preparing and educating those interested exists and can be solved only with time.

It remains none the less true that the essential part of the scheme for distributing cotton seed subsists and that satisfactory progress has been made in applying it. It is useful to notice this fact at the close of the first quinquennial period for which it has been in practice.

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES

ARGENTINE REPUBLIC.

THE ACTIVITY OF LAND CREDIT IN BUENOS AYRES AND THE ARGENTINE PROVINCES IN 1917 — Report of the administrative council on the year 1917 to the ordinary and extraordinary general meeting of 10 May 1918 Paris, 1918

In spite of bad harvests the economic situation of Argentina further improved in 1917. The considerable diminution in the exportable margin of cereals, due to the unsatisfactory harvest of the beginning of last year, was largely outweighed, on the one hand by very high selling prices and on the other by a larger export of the products of stock farming of which Europe stands in great need. The excess of exports over imports was therefore again more than 849 million francs. Money continued in consequence to flow into the country, and since the large producers lack occasion for expenditure, European products having become scarce and reaching Argentina with difficulty, available capital did not cease to accumulate, and the rate of interest lowered more and more on credit operations of all kinds and on the mortgage investments, which daily become rarer, in particular.

The situation will be exactly apprehended if the following figures are examined.

On 31 December 1914, that is to say at the outbreak of war, the amount of the deposits in the banks of Buenos Ayres was 2,616,522,000 francs; two years later, at the end of 1916, it was 3,120,621,000 francs; on 31 December 1917 it was 4,081,316,000 francs. The increase was therefore last year one of about a thousand million francs. The prospects for the current year cause an accentuation of this position to be expected. The cereal harvest is extremely abundant, and transport to Europe has been facilitated by agreements with Great Britain and France; and therefore there is reason to believe that the improvement in the economic situation will be further intensified, and will moreover be generalized since the ships which come to fetch Argentine produce will bring European merchandise.

It is also permissible to suppose that this general improvement will have the effect of further developing the country's production since there will be less risk of a lack of markets.

If only immediate probabilities be considered, greater regularity in the payments by rural borrowers and a rise in the value of properties which are tilled or used for stockfarming may be discounted where land credit is concerned.

The report of the administrative council of the Land Credit of Buenos Ayres shows that the sales of mortgaged properties by defaulting debtors were less numerous than in the previous year. After deduction for amor-

tization, the item representing properties temporarily detained has increased only slightly : it figures on the balance-sheet as 1,022,165 francs instead of 994,294 francs as in 1916. The sum mentioned represents the value of 21 holdings in real estate. The income therefrom is about 8 per cent. of this sum. Interest in arrears has slightly diminished, amounting only to the relatively small sum of 330,858 francs.

In the past year the administrations of the establishment had to examine 122 applications for loans as against 247 in 1916. Of these 122 applications 60 for a total sum of 5,024,800 francs were retained. The sums lent generally represent less than 40 per cent. of the present estimated value of the real estate they secure.

On 31 December 1916 there were 988 loans outstanding, amounting to 45,785,969 francs. During 1917, 152 loans amounting to 6,885,311 francs were repaid, and their number was thus brought down to 836 and their amount to 38,900,658 francs. The loans made in 1917 numbered 60 and amounted to 5,024,800 francs. On 31 December 1917 there was a total of 896 mortgage loans amounting to 43,925,458 francs. It was necessary to deduct from this sum partial amortizations of old loans up to 5,372,988 francs, which brought the effective amount of mortgage credit to 38,552,470 francs on 31 December 1917.

The report does not show the proportion of loans made on urban and real estate, respectively.

SWITZERLAND

THE INTRODUCTION OF THE LAND REGISTER IN THE CANTON OF GENEVA — *Journal de Geneve*, 28 March 1918.

In the canton of Geneva the system of landownership and that of mortgages are based on the Code Napoleon, which was replaced on 1 January 1912 by the new Swiss Civil Code. The application of those rules of the new code which refer to the system of landownership and mortgages has however been subject to a certain delay because it was necessary to prepare a new land register.

The town of Geneva is the first Swiss commune of an importance equal to its own in which the institution after 1 January 1912 of the land register, an innovation in most cantons, occurred in a manner entirely consonant with the civil code. The event took place on 1 April of the current year.

The system which obtained in Geneva with regard to making rights in real estate public was complicated. It necessitated numerous and protracted researches and gave results which were neither absolutely clear nor absolutely trustworthy. The Swiss Civil Code has however introduced with the land register a simple, clear and accurate system of publishing the rights relative to real estate. Thanks to this register researches as to rights of property, mortgages, due services, and other rights appurtenant to real

estate, can be made with certainty and rapidity, for it is enough to examine the open page referring to each holding of real estate in order to obtain all the needed information. Whoever has dealings in real estate therefore finds his work much simplified and facilitated.

This part of the Swiss Civil Code was particularly difficult to apply in the canton of Geneva, where it was necessary to proceed without coming into conflict with the process of transition from one to the other of two very different systems which was in course. Many cantons hesitated to make the change. In Geneva however there was greater willingness to profit by the important advantages presented by the new code; and it was no sooner introduced than the modification, or rather the new casting, of the land registers was begun. This process has now ended owing to the recent creation of the new cadaster.

The work which belongs to the creation of a land register continues in the other communes of the canton in which it will gradually be introduced as it is finished. The work pertaining to the canton of Geneva was executed in the relatively short period of six years.

UNITED STATES.

THE FIRST YEAR OF THE SYSTEM OF FEDERAL FARM LOANS. — *The Economic World*, New York, 13 April 1918.

The Farm Loan Board has issued the following summary of the work accomplished in one year:

"The Federal Farm Loan System has completed its first year of actual operation. The first charter issued to a Federal Bank is dated March 1917, and the charters for the other eleven were issued during that month. Borrowing under the Federal Farm Loan System is done through National Farm Loan Associations, and the first charter granted to one of these associations is dated March 27, 1917; so that while most of the work of organizing the banks, systematizing their business, appointing and training appraisers and the like, had to be done after the end of March 1917, it may be said that the Banks have just about concluded their first year of operation....

"Before the system was put in operation it was argued that our American farmer would not organize for co-operative borrowing. The answer to this seems to be found in the fact that up to March 31, 1918, 2808 National Farm Loan Associations were incorporated, representing about four associations to each five counties in the United States. These associations average about twenty members, representing a total membership of about 56,000 farmers.

"The twelve Federal Land Banks have received applications for over 120,000 loans, amounting to about \$300,000,000. Many of these applications have been rejected, reduced or withdrawn. About 80,000 loans have been approved, amounting to over \$160,000,000; and on over 30,000 of

these loans money has been paid to the farmers, to the amount of about \$80,000,000. Many of the loans approved were for reduced amounts which the borrowers declined to accept.

"Notwithstanding the unusual expenses incident to the operation of new machinery and to the appraisalment and determination of title on many loans that have not yet been closed, the expense of the banks in doing business has been within such limits as to justify the expectation of the Farm Loan Board that these banks will easily be able to operate on a difference of one half of one per cent. between the loaning rate and the rate which they pay on their bonds. None of the banks of course received any appreciable income, from their business during the first half of the year ; but during the last half the business of the Spokane Federal Land Bank, for example, was sufficiently profitable to come within about \$10,000 of wiping out the excess of expenses incurred in the first half, and the volume of business on its books ensures ~~is~~ a handsome surplus for the second year. Every borrower, when he takes out his loan, makes a subscription which increases the stock of the Federal Land Bank to the extent of five per cent. of the amount borrowed. These stock subscriptions of borrowers, in the case of several of the banks, are now so large that, in accordance with the provisions of the Act, the retirement of the original stock of the banks, which was principally subscribed by the government, will begin within a few months".

Part IV: Agricultural Economy in General

JAPAN.

THE RESULTS AND THE PROGRESS OF THE REDIVISION OF LANDS ADMITTING OF CULTIVATION.

SOURCES:

KÔCHI SEIRI JORAN (*Report No. 13 on the Redivision of Lands which can be Cultivated*).
Published by the Ministry of Agriculture and Trade. The Direction of Agriculture.
Tokyo, 5th year Taishô, 9th month, 9th day, 9 September 1910
NÔHOMU HÔREI SHÛRAN (*Collection of the Laws and Decrees of the Ministry of Agriculture and Trade*) 1st part, Vol. II, Section 1, chapter 5. pp 146-263. Tokyo, 1912.

§ 1. LAWS TOUCHING THE REDIVISION OF LANDS WHICH CAN BE CULTIVATED.

A first law as to the redivision of lands which can be cultivated became active in 1899. The object of this law (No. 82, 22 March 1899) was to increase the profits to be derived from the utilization of cultivated land. It did no more than provide, by means of consortia of landowners, for the exchange and the redivision of lots, for a change in the configuration of holdings, and for the transformation and construction of roads, adjacent zones of territory, canals, etc.

The various subsequent amendments of this law invariably and increasingly extended the limits of this work of redivision. The most important amendments in force today, those of 13 April 1909 and 30 March 1914, extend the redivision of cultivable lands so that this enterprise enters into the sphere of agricultural development, and correct certain defects which appeared when the law was applied, thus tending to render the work of redivision more expeditious.

To cite the most important points: the amendment of 1909 made it possible to undertake the technical work necessary to bring about the redivision of the uncultivated lands disregarded by the former law, to change the classification of lands, and to obtain by this reorganization a better result. Moreover it eliminated a fair number of awkwardnesses which were consequent on various legal relations because the former law had confined itself to work done by a society, and it allowed associations (*kumi-aï*) for the redivision of lands to constitute themselves as legal persons. It transmitted

to the local authorities the right of authorization which had hitherto belonged to the Ministry of Agriculture and Trade. It granted special exemptions from the land tax in the case of the redivision of uncultivated lands and a change in the classification of the land affected, and also in the case of an increase of the State lands as a result of putting the redivision into practice. The new amendment of 30 March 1914 has, while taking into account social and technical progress and the practical results of the application of the law of 1909, again enlarged the sphere of operations, for it has admitted that marshy and flooded areas, regained by dams and drainage, may be considered to be subject to the system it sets up. Further, while under the former law only the owner of the property in question or members of *ad hoc* associations could carry out a redivision, the new law admits that those having rights as occupiers or lessees, or those having contracted to carry out works of improvement, under the law as to forests and uncultivated areas (*genya*) or according to the ruling of the administrators of State lands, may promote the redivision of lands after they have obtained the consent of the owners or farmers thereof.

§ 2. NUMBER AND AREA OF THE LOTS ON WHICH
THE LAW MAY BE APPLIED.

The following table contains statistical data, for each year from 1900 to 1914, as to the number and area of the cultivable lands on which a work of redivision has been authorized. It shows clearly the increase which has occurred from one year to another, after the various laws on the redivision of cultivable lands have been applied.

Year	Number of lots	Area chō (r)
1900	17	684.3
1901	71	3,237.5
1902	88	3,222.5
1903	162	6,603.2
1904	175	8,417.1
1905	217	11,048.5
1906	541	34,371.7
1907	407	28,852.1
1908	452	26,901.8
1909*	758	52,109.9
1909	381	27,778.3
1910	749	39,759.8
1911	735	41,713.3
1912	772	37,496.1
1913	815	40,752.3
1914	760	46,344.5

(1) 1 chō = 0.99 hectares

* Data refer to the application of the previous law

In the last year — 1 September 1913 to 30 August 1914 — the redivision of lands was authorized in the case of 760 lots and an area of 46,344.5 chō. A comparison with the figures for the previous year shows that there had been a diminution of 55 in the number of lots, but in the area there was an increase of 5,592 chō.

§ 3. AREAS REDIVIDED CLASSIFIED ACCORDING TO THE KINDS OF CROPS GROWN ON THEM BEFORE AND AFTER REDIVISION.

At the end of 1914 the total area of the land subject to redivision was 393,242 chō. Before the redivision, this area was formed of more than 239,948 chō of paddy-fields (*ta*) (1) and more than 74,628 chō of unirrigated fields (*hatake*), that is altogether, including both *ta* and *hatake*, 314,577 chō, or, in relation to the total area, a little more than 61 per cent. of paddy-fields (*ta*) and a little less than 19 per cent. of unirrigated fields, or a little less than 80 per cent. if *ta* and *hatake* be taken together. It was anticipated that after the redivision there would be more than 313,991 chō of paddy-fields (*ta*) and more than 43,958 chō of unirrigated fields (*hatake*). This is to say that the *ta* and the *hatake* make a total of 357,949 chō, which when compared with the original area represents for the paddy-fields an increase of 74,042 chō or a gain of about 39 per cent., and for the *hatake* a decrease of about 30,670 chō or a loss of a little less than 41.1 per cent.

When *ta* and *hatake* are taken together an increase of about 43,373 chō, or a gain of a little less than 13.8 per cent., can therefore be reckoned. This increase of cultivated land is chiefly due to the transformation of *hatake* into *ta*, and the conversion of forests (*sanrin*) (2), *genya* (3), ponds and uncultivated lands into *ta* and *hatake*, and also to the damming or draining of lakes and lagunas.

Finally it should be noted that the lands of the State used for roads, barriers, dikes and reservoirs useful to irrigation represented before the redivision an area of 23,569 chō. When the work of redivision has ended this

(1) The cultivable lands are divided into *ta* and *hatake*. The *ta* are the damp or moist lands, the paddy-fields, which in the summer are used chiefly for growing rice. After the harvest the lands are dried by drainage, and the fields can yield secondary crops (*urasaku*) such as barley, rye and wheat, beetroot and various plants used as manures. Paddy-fields yielding two harvests a year are said to yield half-yearly and rotatory crops. All of them do not yield two harvests, some failing to do so because of imperfect drainage or a rigorous climate. An important result of the work of redividing lands is the transformation of paddy-fields yielding one to those yielding two crops in the year. The *hatake* are the arid and unirrigated lands, which have elevated and dry situations. Lacking irrigation they cannot be made into paddy-fields. They are intensively utilized by means of a system of rotation and each year they bear two half-yearly crops: in summer soya, sweet potatoes, panais and industrial plants (tobacco, hay, sugarcane and leguminous plants); in winter barley, rye, wheat, beetroot, leguminous plants, etc.

(2) *Sanrin* are mountain and forest lands

(3) *Genya* are plateaux which are uncultivated or used as pasture

area will amount to 33,877 chô: that is to say there will be an increase of 10,308 chô or 43.7 per cent.

This increase is due to a complete organization of roads, barriers and dikes, and to an increased construction of reservoirs for irrigation.

§ 4. THE COSTS OF REDIVISION.

The costs incident to the work of redividing cultivable lands vary notably with each property in accordance with the difficulties which have to be overcome and the cost of local labour. They oscillate between a minimum of a few yens a tan (1) and a maximum of about 150 or 160 yens a tan.

The average cost for the whole empire in relation to the area of the *ta* and the *hatake* after the redivision is 19.75 yens a tan. The total expenditure was therefore about 70,694,781 yens; and as its greater part is absorbed by works of construction, it may be estimated with sufficient exactitude, in spite of the fact that the Ministry of Agriculture has as yet published no statistical data on this point, that 80 per cent. of the expenditure represents the costs of executing works of this kind while the rest is absorbed by costs of management and other accessory expenses.

Finally, it appears, in relation to the area of the *ta* and the *hatake* of each prefectorate, that the highest average expenditure per tan occurred in Nagasaki where it was 50 yen 49 sen 3 ri; in Okayama — 44.913 yen; in Kagawa — 44.513 yen; and in Fukuoka — 43.752 yen. The least average expenditure per tan occurred in Saitama — 8.551 yen; Miyaga — 9.313 yen; Akitz — 10.640 yen; and Fukushima — 11.110 yen.

§ 5. THE ADVANTAGES OF REDIVISION.

The advantages of redividing cultivable lands are naturally not uniform. They vary with the conditions of the lots to which the reform is applied and with the methods followed in executing the work. The results indicated below, and discovered by a careful investigation covering 3,609 lots, situated in all the provinces in which the work of redivision had been completed at the end of December 1912, suffice however to warrant the deduction that advantages have been secured.

The total area of the lots examined was before the redivision 123,909 chô of paddy-fields (*ta*) and 25,014 chô of unirrigated fields, that is 148,923 chô altogether. The redivision has resulted in an increase of 17 per cent. in the area of the *ta* and a decrease of 34 per cent. in that of the *hatake*, that is a net increase of 8 per cent. in the total area.

The increase in the area of the paddy-fields yielding two alternating crops a year (*urасaku-ta* or irrigated fields on which cereals and plants useful

(1) 1 tan = 0.099 hectares.

as manure are grown after the principal or rice harvest) is very considerable. These secondary crops have increased by 120 per cent. as regards cereals (*mugi* = barley, rye and wheat) and by 71 per cent. as regards plants used as manure, that is by 103 per cent. altogether. In other words they have been more than doubled.

This increase in the area utilized for the secondary crops of paddy-fields furnishing a second and different crop abundantly compensates for the loss incurred by the decrease of the *hatake*. The decrease in the area of the latter, to which we have already referred, caused no regret, for the value of the secondary harvest corresponds to 60 per cent. of that of the total yield of the *hatake*, and the increase in the area on which secondary crops are grown compensates for the loss in *hatake* and even results in a normal increase of 21.8 per cent. for these same *hatake*. Therefore an increase of 17 per cent. for the *ta* and of 21.8 per cent. for the *hatake* may be taken to be a result of redivision.

The area cultivated with the aid of oxen and horses, which secure an economy of labour and more fundamental tillage, seems to have diminished after the redivision in the case of the *hatake* but to have increased, almost to have doubled, in that of the *ta*, in which it represented 38 per cent. before the redivision and now represents 63 per cent.

After the redivision the production of rice averaged 1.860 kokou a tan. as compared with an average of 1.680 kokou before it. That is it increased by 0.180 kokou or 17 per cent.

As a total result of the increase in the cultivated area of *ta* and of the average production, there is a total increase since the redivision of 29.4 per cent. in the yield. If it be taken into account that this is an average, the work of redivision now in course may be expected to bring about an increase in the production per tan of rice of as much as 0.410 kokou.

Moreover, since the increase in the area on which a half-yearly secondary harvest (*urasaku*) is obtained is the constant result of increasing the productive area of the *hatake*, it may be considered that even the average production per tan of the least important cereals (*mugi* = barley, rye, wheat) has increased by 0.045 kokou, as compared with that of 1.236 kokou which used to be in normal years the average production per tan of barley and rye according to the statistical data of the Ministry of Agriculture.

Finally those not unimportant advantages should be taken into account which follow on the increased means of communication, the convenience of using canals for transport, the economy of labour and the increase in the value of land.

§ 6. PRESENT CONDITION OF THE WORK OF REDIVIDING LANDS
· ADMITTING OF CULTIVATION AND PROGRESS MADE THEREIN.

An examination of the present condition of and the progress made in the work of the years which elapsed between the passage of the law of 1899 as to the redivision of cultivable land and the third year Taishō (1914) shows that 7,022 lots, having a total area of 404,781 chō, have been subjected to redivision. From this number all properties in which the scheme has ceased to be put into practice, in which its authorization has been annulled, or in which the work has been interrupted or entirely stopped have been excluded. Lots on which the work has been completed represent 57.2 per cent. of the number of those on which work of this kind has been undertaken and 43.1 per cent. of the total area.

Properties of which the classification has been changed do not however exceed 38.1 per cent. of the total number and their area is no more than 25.3 per cent. of the total area.

It is truly deplorable that the administrative formalities with which it was necessary to comply before the classification of land could be changed prevented greater progress. But while such complexity of administrative procedure was the chief impediment, it must be admitted that when the work of redivision had ended it was often found that the fertility of the soil did not reach the standard prescribed for a change of classification.

The properties on which the tax was estimated form 24.8 per cent. of the number of the lots on which the work was executed and their area forms 18.8 per cent. of the total area. The lots registered in the cadaster represent 18.1 per cent. of the total number of the properties on which the work was executed and their area 14 per cent. of the total area : here again there is cause for regret that more progress was not realized, the obstacle being, as in the previous case, administrative formalities.

The lots on which the work of redivision was completed, including the work of dissolved associations which ceded their enterprise to others or completed their task, represent a little less than 5.2 per cent. of the total number and their area slightly less than 2.8 per cent. of the total area.

The smallness of these percentages is understood if it be remembered that all the associations have not succeeded in repaying the sums they received as loans for the execution of the work, and that some of them are continuing the work and will profit by the advantageous provisions of the new law.

§ 7. SPECIAL WORK.

The redivision of cultivable lands generally renders necessary the improvement of roads of communication, canals, etc. Moreover in order to realize a better employ of the land special building and other work has often to be executed. The cost of these works are very high.

Since however this matter is related to the profit which has been both anticipated and derived from the special works in question, even the large expenditure they have entailed has as a rule not been in the least regretted.

From a brief survey of the present position with regard to these special works, it appears that after the law of 1909 as to the redivision of cultivable lands allowed works of improvement to be executed on uncultivated lands and their classification to be changed, initiative in the matter of works of this kind was rapidly taken in each prefecture, so that the number of lots on which there is question of improvements has been brought up to 473, and that of those on which a change of classification has been contemplated to 669.

Moreover on 714 lots in districts without springs reservoirs for irrigation have been constructed or existing reservoirs have been enlarged, which measures are favourable to a change of classification and the improvement of uncultivated lands, and also appreciably increase the yield of cultivated lands.

On 610 lots drainage works involving the construction of underground conduits have been executed — an easy enterprise.

The general tendency to increase the stock of mechanical apparatus for irrigation and drainage is shown by the fact that works of this kind were executed on 149 lots for purposes of irrigation and on 65 for purposes of drainage.

The amendment on 30 March 1914 of the law as to the redivision of lands allows works of damming and drainage to be executed in the zones of lakes and lagunas with the object of further extending the area of cultivated land. This amendment is too recent to allow of any conclusions as to its results. Yet other special works have been executed in order to utilize subterranean waters to repair the damage caused by floods and to remove the larva and ashes deposited by volcanic eruptions.

From all we have related it results that special constructive works have been executed on 2,180 lots, that is on slightly more than 30 per cent. of the total number.

Notes applying to all the tables.

I. — Report No. 13 contains the principal statistical data referring to cultivable lands for which an authorization under the law of 1899 and the amended law of 1909 has been obtained. The endeavour has been thus to facilitate an understanding of the position in the third year Taishō (31 August 1915) with regard to the redivision of cultivable lands.

II. — From September 1914 there have been included in Table VII authorizations granted in accordance with Article 3 of the law of 1909 as to the redivision of cultivable lands (execution of works of redivision by more than one person in partnership or by single persons), in accordance with Article 50 (institution of *kumi-ai* [associations] for the execution of works

JAPAN - AGRICULTURAL ECONOMY IN GENERAL

Order number of provinces	1900		1901		1902		1903		1904		1905		1906		1907	
	Number of lots	Area chō	Number of lots	Area chō	Number of lots	Area chō	Number of lots	Area chō	Number of lots	Area chō	Number of lots	Area chō	Number of lots	Area chō	Number of lots	Area chō
1 Tokyo	—	—	1	33.1	1	40.3	—	—	—	—	—	—	—	—	1	174.7
2 Kyoto	3	76.0	1	5.6	—	—	1	3.3	4	73.5	1	72.5	1	32.6	7	205.6
3 Osaka	—	—	—	—	—	—	—	—	2	101.7	—	—	1	71.3	1	31.3
4 Kanagawa	—	—	—	—	1	6.4	3	141.7	2	318.8	1	47.8	3	390.2	1	13.0
5 Hyōgo	—	—	—	—	—	—	3	66.2	2	82.9	6	142.3	5	118.5	2	92.5
6 Nagasaki	—	—	—	—	—	—	—	—	—	—	4	43.5	1	7.6	1	2.6
7 Niigata	—	—	2	143.0	6	266.7	6	174.4	17	1,299.2	14	1,093.9	15	1,186.5	8	750.0
8 Saitama	—	—	2	447.8	2	139.7	4	168.4	7	504.7	6	499.4	2	98.9	4	2,683.2
9 Gunma	—	—	3	53.5	8	116.3	7	118.0	10	574.1	2	20.7	58	2,111.5	12	220.2
0 Chiba	—	—	6	380.7	4	454.0	4	379.7	7	1,363.3	8	773.1	6	671.6	9	840.4
1 Ibaraki	1	100.1	1	245.5	1	122.5	9	1,112.7	4	93.2	5	698.3	13	1,862.5	7	2,104.4
2 Tochigi	1	12.3	—	—	—	—	9	195.8	7	237.4	6	231.4	9	362.1	17	709.4
3 Nara	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4 Mie	—	—	1	17.7	1	16.5	1	52.1	1	45.4	1	108.4	1	7.4	7	372.0
5 Aichi	2	265.0	2	131.5	1	168.4	1	121.8	1	3.7	8	1,204.7	6	1,088.6	2	2,127.0
6 Shizuoka	3	89.9	8	273.9	5	255.4	4	56.2	1	90.4	3	26.1	—	—	6	416.9
7 Yamanashi	—	—	1	7.9	—	—	—	—	—	—	—	—	—	—	—	—
8 Shiga	—	—	—	—	—	—	—	—	1	34.4	3	55.3	4	134.6	2	26.1
9 Gifu	—	—	1	211.5	2	126.6	1	162.1	1	32.6	1	31.7	2	41.8	1	66.2

27	Fukui. . .	9	201.0	10	308.6	8	145.6	10	317.1	15	406.6	7	315.3	17	735.7	21	948.2	121	4,229.3
28	Ishikawa .	15	613.2	22	1,105.1	20	1,246.0	69	4,835.5	57	3,339.6	49	2,467.2	64	2,368.7	41	2,090.2	394	20,008.9
29	Toyama .	9	680.8	10	982.3	2	373.0	6	425.6	9	416.5	10	254.2	9	855.1	55	901.4	139	7,943.7
30	Tottori . .	9	410.1	6	407.2	8	1,419.4	12	1,665.0	17	1,747.5	33	1,766.1	11	950.5	12	267.6	120	9,150.9
31	Shimane. .	9	323.9	18	172.9	17	217.4	41	502.3	59	521.9	45	313.6	41	220.1	46	449.6	325	3,357.0
32	Okayama .	10	206.1	30	827.2	6	151.1	20	600.4	14	243.6	16	1,091.8	21	865.0	20	1,080.8	142	5,264.2
33	Hiroshima. .	4	70.7	6	87.9	11	341.6	16	423.5	19	322.2	31	759.5	30	204.0	35	1,054.2	167	4,242.0
34	Yamaguchi	32	297.9	23	624.0	25	437.1	38	866.0	49	1,273.1	34	892.8	63	2,168.8	39	1,051.2	424	9,145.6
35	Wakayama	2	69.7	3	152.6	4	47.1	8	158.1	6	220.2	10	163.7	13	299.9	2	181.1	49	1,305.9
36	Tokushima	—	—	2	182.6	—	—	4	105.8	4	132.2	8	586.4	7	421.0	7	721.4	32	2,209.4
37	Kagawa .	5	77.1	4	79.2	2	55.0	4	76.5	8	289.7	5	214.4	7	449.7	2	125.4	41	1,508.6
38	Ehime . .	9	455.5	20	763.1	8	303.4	11	1,240.7	8	369.5	9	389.1	10	651.9	7	264.5	96	4,794.5
39	Kōchi. . .	—	—	2	25.9	5	63.7	10	331.7	8	129.2	6	708.4	14	710.8	11	213.1	56	2,202.8
40	Irukoka .	24	511.2	218	10,126.2	6	206.1	40	1,284.8	39	996.7	41	1,177.2	31	1,494.9	34	1,127.8	492	18,758.4
41	Ōita . . .	9	199.9	12	237.7	13	540.6	15	895.7	8	187.8	8	304.7	13	3,022.7	21	2,452.9	115	8,060.8
42	Saga . . .	5	126.4	56	1,369.3	7	356.1	19	702.6	16	173.8	15	383.0	22	541.8	19	445.7	181	4,694.6
43	Kumamoto	31	1,082.1	18	442.4	30	605.6	18	377.0	31	405.9	35	870.6	24	282.4	21	759.4	255	5,817.8
44	Miyazaki .	—	—	3	66.2	26	1,960.5	21	1,284.0	32	1,708.1	46	3,700.1	34	1,664.4	19	412.5	188	10,912.2
45	Kagoshima	42	1,321.9	51	1,808.3	38	1,755.1	33	1,292.6	31	1,953.4	45	1,045.5	31	815.6	33	8,679.5	343	20,124.1
	Totales . .	452	26,991.8	758	52,109.9	381	27,778.3	749	39,759.8	735	41,713.3	772	37,496.1	815	40,752.3	760	46,344.5	7,100	409,572.9

Note. — This table shows the number and the total area of the lots for which the authorization has been obtained which is prescribed by Articles 2 and 22 of the law of 1899 as to the redivision of cultivable lands and Articles 3 and 50 of the law of 1909 as to the same. Those lots have been included in which the application has not been persisted with, in which there has ensued an annulment of the authorization or a final arrest of the work, in which the work has been completed by or ceded to a new party, or in which associations founded for the redivision of cultivable lands have been dissolved. From 1900 to 1912 calculations were made for solar years; after 1912 rather for years regarded as complete working years for the redivision of cultivable lands. A transformation into an association, under Article 96 of the law of 1909 as to the redivision of cultivable lands, is counted only in the column of the year of the authorization which preceded such transformation.

of redivision), or in accordance with Article 96 (transformation into *kumi-ai* for the redivision of cultivable lands, under the law of 1909, of persons already authorized to undertake or execute works under the law of 1899 as to the redivision of cultivable lands).

III. — To Table VII there have been added some data for the provinces of Tokushima and Okayama which could not be inserted in the previous report, No. 12, owing to a delay in communicating them. These data refer to authorizations granted in the previous year.

IV. — The area given in these tables is prior to the work of redivision unless the contrary is stated.

V. — By State lands are meant the roads, dikes, canals, ponds, etc. which belong to the State.

VI. — Every change in the scheme of work or in a lot subjected to redivision which results in a difference of expenditure or area is separately noted in these tables.

TABLE II. — *Classification by provinces of the number and area of the lots of which the redivision is in course or has been completed.*

Ord of provinces	Provinces	Redivision in course		Work ceded to others or completed		Total	
		Number of lots	Total area chō	Number of lots	Total chō	Number of lots	Total chō
1	Tōkyō	13	1,145.1	1	41.7	14	1,186.8
2	Kyōto	118	3,242.6	6	189.9	124	3,432.5
3	Osaka	50	1,916.7	3	103.3	53	2,020.0
4	Kanagawa	34	2,669.6	4	77.8	38	2,747.4
5	Hyōgo	119	5,433.0	—	—	119	5,433.0
6	Nagasaki	163	2,552.8	17	111.2	180	2,664.0
7	Niigata	159	21,065.8	26	1,213.2	185	22,279.0
8	Saitama	87	17,822.9	9	410.5	96	18,233.4
9	Gumma	124	7,469.5	39	606.4	163	8,075.9
10	Chiba	55	15,989.3	1	44.1	56	16,033.4
11	Ibaraki	97	18,842.8	—	—	97	18,842.8
12	Tochigi	202	9,341.3	9	261.2	211	9,602.5
13	Nara	28	706.9	—	—	28	706.9
14	Mie	124	6,452.0	2	30.1	126	6,482.1
15	Aichi	93	14,096.8	1	3.7	94	14,100.5
16	Shizuoka	143	11,758.1	10	173.3	153	11,931.4
17	Yamanashi	29	1,744.4	3	63.5	32	1,807.9
18	Shiga	93	3,361.4	5	66.3	98	3,427.7
19	Gifu	90	6,141.1	2	98.0	92	6,239.1
20	Nagano	129	2,309.9	4	51.2	133	2,361.1
21	Miyagi	300	30,905.6	34	2,597.5	334	33,503.1
22	Fukushima	477	21,846.2	8	537.2	485	22,383.4
23	Iwate	70	4,572.9	1	2.3	71	4,575.2
	Aomori	59	2,496.2	1	25.2	60	2,521.4
	Yamagata	103	21,066.1	26	1,965.8	129	23,031.9
	Akita	144	18,243.6	—	—	144	18,243.6
	Fukui	120	4,306.6	1	17.9	121	4,324.5
28	Ishikawa	387	19,703.4	7	364.0	394	20,067.4
29	Toyama	139	7,956.5	—	—	139	7,956.5
30	Tottori	107	8,099.6	4	127.8	111	8,227.4
31	Shimane	289	3,055.5	35	267.8	324	3,323.3
32	Okayama	138	5,190.7	1	3.8	139	5,194.5
33	Hiroshima	167	4,243.2	—	—	167	4,243.2
34	Yamaguchi	407	8,918.6	16	262.1	423	9,180.7
35	Wakayama	49	1,307.2	—	—	49	1,307.2
36	Tokushima	32	2,213.5	—	—	32	2,213.5
	Kagawa	—	1,511.0	—	—	—	1,511.0
	Ehime	87	4,683.7	9	228.9	96	4,912.6
	Kōchi	55	2,186.1	1	21.9	56	2,208.0
	Fukuoka	475	18,119.1	8	101.4	483	18,220.5
	Ōita	113	8,050.9	2	9.3	115	8,060.2
	Kumamoto	177	4,637.5	3	55.2	180	4,692.7
	Miyazaki	227	5,344.0	27	436.9	254	5,780.9
	Kagoshima	189	10,941.0	—	—	189	10,941.0
	Kagoshima	318	19,581.4	25	627.3	343	20,208.7
	Total	6,660	393,242.1	362	11,339.1	7,022	404,581.2

Notes. — In the column of this table in which the lots are indicated on which the work of redivision has been ceded to others or completed, those lots are included which have been notified in accordance with Article 51 of the law of 1899 as to the redivision of cultivable lands, and also the lots on which redivision has been completed after the law of 1909 and the associations of which have been dissolved in consequence of the cession of the work or because the work has been completed. The area given of the lots on which redivision is now in course is their area before the work was begun. For the lots on which the work has been ceded to others or completed the area given is that anticipated for the new lots.

*Classification by provinces of the lots now
subjected to redivision
area and distribution of costs.*

Order number of provinces	Number of lots	Area		Anticipated		before		after		Area		Anticipated		of co		relation		Average per lot
		before		redvision		area		chō		chō		chō		chō		o total		
		chō	chō	chō	chō	chō	chō	chō	chō	chō	chō	chō	chō	chō	chō	chō	yen		yen
1	Tōkyō . .	2,014	145	380.3	845.4	148.8	148.3	89.7	126.5	201,473	18,206	20,980						
2	Kyōto . .	8,403	2,422.6	2,366.2	2,867.7	356.4	206.8	231.6	317.8	893,293	27,549	29,055						
3	Osaka . .	3,017	916.7	1,261.6	1,529.2	521.3	237.8	63.2	103.3	468,190	24,427	26,496						
4	Kanagawa	4,706	1,669.6	1,797.6	2,073.3	311.5	271.7	261.7	294.9	447,724	16,771	19,093						
5	Hyōgo . .	6,617	5,433.0	3,010.3	4,763.3	916.8	152.1	210.4	414.1	1,599,894	29,448	32,549						
6	Nagasaki .	5,991	2,552.8	1,195.6	2,216.7	573.6	81.6	85.6	143.6	1,160,330	45,461	50,495						
7	Niigata . .	20,458	21,065.8	16,613.6	19,427.0	2,268.1	1,008.4	967.8	1,832.2	3,084,303	14,641	15,093						
8	Saitama . .	25,114	17,822.9	11,396.9	11,922.6	4,591.2	4,462.5	558.1	621.7	1,401,112	7,861	8,551						
9	Gumma . .	11,296	7,459.5	3,161.4	4,368.5	2,636.5	2,089.5	558.1	621.7	1,339,540	17,933	20,742						
10	Chiba . .	21,997	15,983.3	10,415.9	11,251.5	3,070.3	3,106.6	928.4	1,450.6	1,896,367	11,865	13,208						
11	Ibaraki . .	21,469	18,842.8	11,015.5	13,502.6	4,256.2	3,811.2	1,714.4	1,664.6	2,194,635	11,646	12,676						
12	Tochigi . .	11,416	9,341.3	4,265.0	7,212.4	2,238.0	893.0	836.1	781.1	1,894,634	20,282	23,375						
13	Nara . .	1,431	706.9	557.1	647.4	72.7	16.2	35.4	47.4	186,745	26,118	28,141						
14	Mie . .	11,162	6,452.0	4,719.1	5,456.5	621.3	511.3	430.6	675.4	1,391,801	21,572	23,322						
15	Aichi . .	24,437	14,096.8	7,472.0	9,985.3	3,755.1	2,399.1	857.5	1,348.2	2,537,865	18,003	20,492						
16	Shizuoka .	23,322	11,758.1	7,930.7	8,633.5	1,418.8	983.4	832.8	1,078.6	2,846,683	24,210	26,601						
17	Yamanashi	2,856	1,744.4	1,126.3	1,337.9	373.7	315.2	114.2	143.6	293,566	16,812	16,728						
18	Shiga . .	7,748	3,361.4	2,267.6	3,026.3	371.8	104.7	208.6	241.4	1,230,731	36,614	39,308						
19	Gifu . .	15,084	6,141.1	3,232.6	4,307.5	1,136.8	694.4	331.0	601.1	1,535,617	25,006	30,713						
20	Nagano . .	6,183	2,309.9	899.8	1,734.8	753.6	477.6	122.3	183.0	687,823	29,777	31,089						

21	Myagi	33,060	300	30,309.9	1,530.9	26,864.0	2,270.3	2,804.3	623.2	3,637.6	2,708,840	8,765	9,312
22	Fukushima	36,109	477	21,846.2	1,660.2	16,906.2	2,808.0	2,692.0	371.9	2,250.2	2,185,236	10,003	11,110
23	Iwate	6,184	70	4,572.9	1,568.9	3,613.0	1,027.1	527.7	362.2	358.3	595,320	14,377	14,377
24	Aomori	2,074	59	2,496.2	835.6	1,671.6	270.1	777.3	90.8	308.4	353,492	14,018	15,049
25	Yamagata	17,982	103	21,066.1	3,775.2	19,611.8	3,623.2	1,123.6	101.7	1,596.9	2,387,387	11,333	11,509
26	Akita	13,287	144	18,243.6	4,147.7	17,008.4	881.1	336.8	250.0	1,676.5	1,845,351	10,116	10,640
27	Fukui	7,591	120	4,306.6	2,556.7	3,865.4	1,150.1	312.4	305.8	398.6	1,285,857	29,858	30,778
28	Ishikawa	39,105	387	19,703.4	4,912.6	17,211.0	1,775.8	956.4	366.8	1,643.0	2,525,748	12,818	13,903
29	Toyama	11,851	139	7,956.5	4,785.7	7,432.0	446.6	245.8	495.0	601.6	1,364,569	17,150	17,773
30	Tochigi	14,991	107	8,099.6	3,913.2	4,381.6	2,315.2	2,364.9	453.1	502.2	914,775	11,294	13,559
31	Shimane	6,974	289	3,055.5	2,218.7	2,604.5	340.8	115.8	166.2	221.0	730,260	23,900	26,845
32	Okayama	12,700	138	5,190.7	2,541.0	4,492.7	898.7	53.2	458.9	610.1	2,041,681	39,333	44,913
33	Hiroshima	10,227	167	4,243.2	2,844.3	3,444.8	431.0	108.9	259.1	327.6	1,229,890	28,985	33,661
34	Yamaguchi	18,405	407	8,918.6	6,102.6	7,259.4	1,093.2	298.8	453.1	533.1	2,525,134	28,813	33,409
35	Wakayama	3,184	49	1,307.2	1,000.1	1,182.8	89.1	19.9	72.5	92.6	318,237	24,345	26,460
36	Tokushima	5,204	32	2,213.5	480.1	1,972.6	1,412.0	213.7	96.4	171.0	614,769	27,774	28,119
37	Kagawa	11,336	41	1,511.0	744.2	1,120.0	341.8	91.3	202.8	218.7	539,185	35,682	44,513
38	Ehime	8,931	87	4,683.7	3,418.8	3,902.2	428.3	206.0	256.0	315.5	1,336,239	28,530	32,526
39	Kochi	5,285	55	2,186.1	1,448.3	1,591.2	219.9	142.2	222.6	236.4	452,388	20,703	26,110
40	Fukuoka	38,466	475	18,119.1	9,590.5	16,899.6	6,406.4	308.5	664.9	1,478.0	7,529,246	41,554	43,753
41	Osaka	12,775	113	8,050.9	1,814.0	4,257.2	2,644.2	848.7	348.0	518.0	2,003,982	24,891	39,248
42	Saga	15,761	177	4,637.5	2,049.1	3,686.6	1,334.7	322.8	272.9	449.4	1,738,849	37,495	43,369
43	Kumamoto	13,833	227	5,344.0	2,696.2	4,837.5	997.8	249.3	313.2	347.1	1,574,267	29,459	30,948
44	Myazaki	24,861	189	10,941.0	7,420.5	10,232.4	2,069.5	600.9	706.9	981.1	1,345,960	12,302	12,424
45	Kagoshima	52,907	318	19,581.4	8,789.7	11,433.2	8,956.8	6,267.6	705.9	1,052.5	3,248,493	16,559	8,318
Total		661,804	6,660	393,242.1	139,945.9	313,991.6	4,628.2	43,958.2	23,569.1	33,877.2	70,694,781	17,977	19,750

Note. — This table does not include, among lots for which that authorization was obtained to which article 30 of the law of 1909 and articles 2 and 22 of the law of 1899 as to the redivision of cultivable lands refer, the lots for which the application was not persisted with or for which the authorization was annulled and the work was interrupted or ceased completely, or the lots of which the associations were dissolved after they had ceased the work to which the authorization referred. The anticipated expenditure is calculated for work executed under the law of 1899, on the total expenditure article 30 of the law of 1909 on the expenditure on constructive works only.

TABLE IV. — *Classification by provinces of the number and area of the lots now subject to the redivism of cultivable lands.*

Order number of provinces	Prov.	Constituted under the law of 1899			Constituted as associations from the beginning			Constituted first under the law of 1899 and then transformed into associations			Redivision entrusted to individuals or persons united in associations			Total		
		Number of lots	Total area chô	Number of lots	Total area chô	Number of lots	Total area chô	Number of lots	Total area chô	Number of lots	Total area chô	Number of lots	Total area chô	Number of lots	Total area chô	Number of lots
1	Tôkyô . .	3	229.0	9	911.0					1	4.2	13	1,145.1			
2	Kyôto . .	26	960.0	84	2,333.0	4	198.7	4	50.9	4	50.9	18	3,242.6			
3	Osaka . .	3	107.2	41	1,737.4	1	33.3	1	33.3	5	38.8	50	1,916.7			
4	Kanagawa . .	9	865.1	21	1,410.7	1	182.4	1	182.4	3	211.4	34	2,669.6			
5	Hyôgo . .	30	1,166.5	72	3,385.7	4	532.2	4	532.2	13	348.6	19	5,433.0			
6	Nagasaki . .	24	206.5	121	2,198.1					18	148.2	63	2,552.8			
7	Niigata . .	59	4,607.0	83	14,597.8	9	1,698.2	9	1,698.2	8	162.8	59	21,065.8			
8	Saitama . .	27	4,595.7	39	5,595.2	7	7,695.7	7	7,695.7	4	26.3	87	17,822.9			
9	Gunma . .	82	3,981.7	32	3,055.7	1	379.6	1	379.6	9	52.5	124	7,469.5			
10	Chiba . .	38	4,012.7	36	8,270.4	10	3,703.8	10	3,703.8	1	2.4	95	15,989.3			
11	Ibaraki . .	24	2,211.7	35	10,752.2	10	5,554.4	10	5,554.4	8	324.5	97	18,842.8			
12	Tochigi . .	81	3,577.3	79	4,097.8	2	1,186.0	2	1,186.0	40	480.2	102	9,341.3			
13	Nara . . .	—	—	23	690.5	—	—	—	—	—	16.4	28	706.9			
14	Mie . . .	23	652.4	73	4,785.0	5	558.6	5	558.6		456.0	24	6,452.0			
15	Aichi . . .	32	3,763.3	43	5,419.1	8	3,974.0	8	3,974.0		940.4	93	14,096.8			
16	Shizuoka . .	41	1,801.1	85	9,574.8	2	303.6	2	303.6		78.6	143	11,758.1			
17	Yamanashi . .	6	203.2	21	1,009.4	2	531.8	2	531.8		—	29	1,744.4			
18	Shiga . . .	18	615.2	63	2,612.9	2	104.3	2	104.3		29.0	93	3,361.4			
		—	—	67	4,844.6	8	244.5	8	244.5		232.3	90	6,141.1			

20	Nagano .	37	774.2	43	1,028.5	9	206.3	40	300.9	129	2,369.9
21	Miyagi .	126	10,398.5	125	13,925.2	42	6,357.8	1	224.1	300	30,905.6
22	Fukushi	68	2,638.7	73	3,148.7	317	15,567.2	19	491.6	477	21,846.2
23	Iwate .	30	2,895.3	30	1,500.3	1	141.4	9	35.9	70	4,572.9
24	Aomori .	5	512.0	20	945.6	1	21.7	33	016.9	59	2,496.2
25	Yamagata	52	3,808.0	35	8,689.7	14	8,556.0	2	12.4	103	21,066.1
26	Akita .	22	1,416.2	74	6,637.9	28	9,953.8	20	235.7	144	18,243.6
27	Fukui .	40	1,283.5	74	2,826.9	2	115.3	4	80.9	120	4,306.6
28	Ishikawa .	55	1,636.1	289	6,187.5	35	1,823.0	8	56.8	387	19,703.4
29	Toyama .	32	2,445.8	81	4,566.8	16	1,174.9	10	69.0	139	7,956.5
30	Tottori .	18	899.4	75	6,849.7	5	310.9	9	39.6	107	8,099.6
31	Shimane .	43	544.9	106	1,899.0	6	319.6	134	292.0	289	3,055.5
32	Okayama .	38	1,013.5	89	3,527.5	4	160.2	7	489.5	138	5,190.7
33	Hiroshima	24	434.1	124	3,752.6	1	2.5	18	54.0	167	4,243.2
34	Yamaguchi	155	1,453.6	123	6,935.6	5	438.9	24	90.5	407	8,918.6
35	Wakayama	3	74.7	34	1,036.0	3	161.0	9	35.5	49	1,307.2
36	Tokushima	1	104.4	28	2,022.7	1	78.1	2	8.3	32	2,213.5
37	Kagawa .	13	297.8	22	1,160.6	—	—	6	52.6	41	1,511.0
38	Ehime .	28	759.3	48	3,210.0	9	705.2	2	9.2	87	4,683.7
39	Kochi .	1	5.3	48	2,154.9	—	—	6	25.9	55	2,186.1
40	Fukuoka .	288	11,821.0	76	6,245.4	—	—	11	52.7	475	18,119.1
41	Osaka . . .	34	567.4	71	7,354.0	2	83.6	6	45.9	113	8,050.9
42	Saga . . .	79	2,024.0	91	2,591.3	—	—	7	22.2	177	4,637.5
43	Kumamoto	76	2,097.5	30	2,937.5	—	—	21	309.0	227	5,344.0
44	Miyazaki	10	182.7	69	0,671.2	—	—	10	87.1	189	10,941.0
45	Kagoshima	123	4,384.2	89	5,174.5	—	—	6	22.7	318	19,581.4
		943	88,058.3	3,88	2,4260.9	617	73,158.5	612	764.4	6,660	393,242.1
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Note. In this table the lots are not included as to which the application has not been submitted with the authority of the Board of Commissioners. The lots which are included in the table are those for which the application has been submitted with the authority of the Board of Commissioners. The lots which are included in the table are those for which the application has been submitted with the authority of the Board of Commissioners.

TABLE V. — *Classification by provinces of the lots of an area of more than 50 chô and those on which special works are being executed.*

Order number of provinces	Provinces	Total number of lots	Lots of which the area is more than 50 chô	Number of lots on which special works are being executed	uncultivated land brought under cultivation	change of classification of land	damming	drainage	reservoirs	dikes and canals	Kind of special work									
											passages	underground passages	for irrigation	for drainage	mechanical appliances	irrigation by underground canals	restoration after damage by floods	removal of lava and ashes after volcanic eruptions	Other works	
1	Tôkyô	14	5	4	—	—	—	—	—	—	—	—	—	1	—	—	—	—	3	
2	Kyôto	124	17	37	—	12	—	—	24	—	—	—	2	5	—	—	1	—	6	
3	Osaka	53	12	32	—	12	—	—	16	—	—	—	7	1	—	1	—	—	4	
4	Kanag	38	14	11	—	2	—	—	1	—	—	—	—	2	—	1	2	—	4	
5	Hyôgo	130	28	49	—	16	—	—	21	—	1	—	8	—	3	—	—	—	6	
6	Nagasa	180	4	48	—	22	—	—	28	—	—	—	—	—	—	10	—	—	4	
7	Niigata	185	106	45	—	26	—	—	1	—	—	—	5	6	—	6	1	—	7	
8	Saitam	96	55	12	—	3	—	—	2	—	—	—	1	3	—	—	—	—	2	
9	Gumma	163	43	30	—	9	—	—	6	—	—	—	—	—	—	7	3	—	1	
10	Chiba	96	69	60	—	4	—	—	32	—	—	—	4	19	—	7	—	—	11	
	Ibarak	97	61	39	—	6	—	—	7	—	—	—	3	12	—	3	—	—	7	
	Tochig	211	47	56	—	36	—	—	8	—	1	—	—	—	—	33	1	—	9	
	Nara	28	6	11	—	2	—	—	7	—	—	—	3	—	—	2	—	—	—	
	Mie . . .	126	43	29	—	6	—	—	7	—	—	—	1	1	—	—	—	—	9	
	Aichi . .	94	53	29	—	7	—	—	16	—	—	—	3	3	1	—	—	—	4	
	Shizuoka .	153	36	24	—	3	—	—	3	—	—	—	3	1	—	1	4	—	7	
	Yamanashi	32	10	6	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	
	Shiga . .	98	21	51	—	11	—	—	9	—	—	—	29	—	—	4	—	—	8	
	Gifu . . .	92	41	41	—	19	—	—	18	—	—	—	4	2	—	2	—	—	10	
	Nagano .	133	11	42	—	8	—	—	8	—	—	—	2	1	—	14	4	—	5	

TABLE VI. — Number and area of the lots of which the classification has been changed because the redivision has been completed.

Order number of provinces	Provinces	Number of lots	Is			Matsuke			State lands		
			Total area	Area before redivision	Final area	Area before redivision	Final area	Area before redivision	Area before redivision	Final area	Final area
			chō	chō	chō	chō	chō	chō	chō	chō	chō
1	Tōkyō	5	121.1	86.1	88.5	16.1	17.2	7.0	7.0	10.7	10.7
2	Kyōto	23	512.4	422.6	454.1	17.1	17.3	27.1	27.1	35.8	35.8
3	Osaka	14	411.6	296.2	314.8	66.8	63.2	17.9	17.9	30.7	30.7
4	Kanagawa	18	1,069.4	760.5	807.1	130.1	110.5	122.5	122.5	117.7	117.7
5	Hyōgo	34	1,162.0	928.6	1,126.8	166.4	29.7	64.3	64.3	93.6	93.6
6	Nagasaki	60	541.4	431.8	490.3	32.1	6.7	27.5	27.5	36.8	36.8
7	Niigata	74	5,279.3	3,930.7	4,598.1	477.2	227.4	289.1	289.1	369.2	369.2
8	Saitama	45	4,092.5	2,604.8	2,787.1	931.9	866.3	182.8	182.8	315.6	315.6
9	Gunma	131	4,571.6	1,961.0	2,588.8	1,405.8	1,269.5	340.7	340.7	336.5	336.5
10	Chiba	16	1,530.8	1,224.8	1,281.8	77.3	73.5	100.9	100.9	127.5	127.5
11	Ibaraki	18	1,161.5	801.0	898.4	181.3	140.1	79.9	79.9	108.0	108.0
12	Tochigi	99	2,996.7	1,611.7	2,446.8	587.8	202.6	305.6	305.6	263.1	263.1
13	Nara	5	98.6	73.3	82.6	4.2	1.6	9.0	9.0	10.8	10.8
14	Mie	21	467.1	394.6	409.0	44.2	7.2	23.6	23.6	33.9	33.9
15	Aichi	18	1,603.4	653.3	1,148.9	384.0	226.3	118.7	118.7	130.3	130.3
16	Shizuoka	45	1,264.3	917.2	975.4	92.2	79.3	63.0	63.0	89.1	89.1

No.	Name	49	761.3	371.3	534.6	221.0	139.5	32.4	57.8
21	Mi. J.	229	23,802.1	6,324.5	9,700.8	1,423.8	,686.5	973.8	1,831.4
22	Fuji shi	310	14,392.5	9,766.0	1,231.6	1,600.3	,610.0	962.9	1,428.5
23	Iwai .	15	1,428.1	940.8	1,086.9	142.3	154.6	146.4	117.2
24	Aomori	12	510.9	310.3	398.5	31.9	57.4	20.9	51.0
25	Yamagata	56	3,944.2	2,831.3	3,226.7	363.3	188.5	149.0	187.5
26	Akita .	9	718.2	568.5	620.4	28.2	23.7	42.3	58.9
27	Fukui .	11	217.4	139.0	187.0	30.8	6.0	14.8	14.7
28	Ishikawa	48	1,981.0	1,539.8	1,692.8	145.1	60.9	119.0	180.3
29	Toyama	12	464.1	317.3	393.4	4.6	9.9	37.9	44.0
30	Tottori	27	1,131.2	818.5	883.2	176.0	168.8	40.3	53.1
31	Shimane	109	1,151.9	872.9	1,043.7	40.9	10.2	49.0	69.7
32	Okayama	18	541.4	97.2	514.5	37.4	2.6	65.0	54.1
33	Hiroshima	28	427.8	361.1	392.0	16.0	1.6	23.4	26.3
34	Yamaguchi	190	2,484.4	2,073.3	2,199.7	154.7	60.5	130.5	140.5
35	Wakayama	18	267.2	224.6	237.3	6.5	5.6	13.7	18.0
36	Tokushima	6	230.2	56.2	193.9	159.0	19.3	9.8	19.3
37	Kagawa .	6	91.0	11.7	75.3	55.5	1.4	11.0	12.4
38	Ehime .	52	1,913.4	653.0	794.4	74.1	46.2	90.3	117.2
39	Kochi .	3	30.0	21.4	24.1	1.2	0.1	4.0	4.1
40	Fukuoka	259	4,901.9	2,378.3	4,312.2	1,896.9	146.3	191.3	345.2
41	Oita .	29	630.7	440.5	559.7	110.4	17.0	35.0	46.7
42	Saga .	38	802.5	367.9	631.6	257.2	77.5	47.6	69.7
43	Kumamoto	185	4,201.8	2,476.7	3,755.1	688.5	107.0	230.9	258.7
44	Miyazaki	63	2,491.7	1,850.9	2,293.2	195.6	59.7	174.6	207.0
45	Kagoshima	200	5,096.4	4,108.1	4,529.9	229.3	113.6	343.9	434.4
Total .		2,576	67,674	82,690.7	3,034.2	8,179.3	5,786.8	8,025.3	

Notes. 1. In this table the lots are indicated for which the authorization prescribed by Article 48 of the law of 1806, and Article 30 of the law of 1871, for the redivision of divisible lands has been granted. 2. In this table the lots which have, under Article 18 of the law of 1871, reported on the completion of these have been included.

TABLE VII. — *Course of the granting of authorizations for the redivision of cultivable lands from 1 September 1914 to 31 August 1915.*

Order number of provinces	Provinces	New associations (Kumiai) constituted to carry out redivision	Individuals or partners	Total area		Area		roads, canals, etc on State land		Proportion of expenditure for execution of works of construction yen	Number of mem- bers of part- nership of associ- ations	
				before redivision	proportion anticipated	before redivision	hatake	proportion anticipated				
								chô	chô			chô	chô
1	Tôkyô	2	—	55.4	26.4	22.9	11.7	12.8	5.2	7.6	29,137	146
2	Kyôto	23	—	738.4	518.5	646.4	92.4	73.1	50.8	81.4	216,975	2,100
3	Osaka	5	—	280.5	172.9	209.1	123.4	—	8.5	15.6	69,283	440
4	Kanagawa	2	—	253.3	167.4	196.5	59.8	42.5	16.2	23.9	28,067	430
5	Hyôgo	17	2	592.8	68.2	418.2	309.1	13.2	24.3	62.1	280,191	1,214
6	Nagasaki	16	7	783.8	521.7	705.5	60.9	8.0	7.1	15.5	195,859	1,156
7	Niigata	23	2	6,985.6	5,547.2	6,520.6	857.0	346.0	440.6	695.0	1,269,204	7,036
8	Saitama	17	4	1,624.1	1,004.6	1,084.9	433.0	428.6	104.7	140.5	137,556	3,422
9	Gumma	3	2	134.2	26.4	55.0	51.9	53.0	10.4	10.9	12,028	238
10	Chiba	4	1	401.0	260.6	290.4	49.8	44.0	59.9	- 61.9	71,591	562
11	Ibaraki	8	3	1,301.9	490.8	1,031.3	364.6	379.4	70.7	135.8	275,722	1,568
12	Tochigi	12	5	772.0	275.1	460.8	157.4	62.5	51.8	53.9	96,765	704
13	Nara	2	2	66.6	49.9	53.6	6.5	4.8	2.8	3.6	14,778	130
14	Mie	14	3	876.4	705.8	780.0	59.1	55.2	61.7	80.2	192,066	1,771
15	Aichi	10	2	1,542.9	797.3	917.4	441.2	413.6	67.7	145.3	333,859	2,649
16	Shizuoka	27	3	1,364.9	896.2	1,053.7	155.1	149.8	118.7	141.1	320,403	3,402
17	Shiga	18	3	533.0	396.9	489.6	50.5	14.8	40.3	43.4	181,319	1,261
18	Gifu	11	—	1,117.8	260.7	586.1	275.5	107.1	53.6	112.9	441,388	1,679

		5	6	203.0	53.2	111.3	66.3	100.7	90.7	20.9	2.9	190.3	34.3
21	Fukushima	..	..	..	..	..	..	..	..	..	..	..	..
22	Iwate	..	3	35.6	5.1	31.1	14.9	2.6	1.2	2.9	..	12,332	35
23	Aomori	..	*3	414.9	20.8	117.2	36.3	29.5	1.4	34.6	..	53,388	169
24	Yamagata	..	10	1,098.4	471.1	1,069.6	254.6	61.0	73.5	107.1	..	222,914	1,091
25	Akita	..	5	98.1	67.5	93.2	8.4	1.8	10.2	17.7	..	19,869	116
26	Fukui	..	21	948.2	553.6	876.6	232.3	53.9	75.4	91.9	..	331,472	1,774
27	Ishikawa	..	40	2,090.2	1,700.4	2,010.4	121.8	22.3	144.5	199.5	..	444,232	4,467
28	Toyama	..	49	2,301.4	809.4	2,299.4	39.0	6.0	136.4	179.9	..	559,125	3,046
29	Tottori	..	*11	393.9	228.4	256.2	32.5	27.9	18.7	29.1	..	57,278	496
30	Shimane	..	16	449.6	308.3	397.2	63.5	16.1	23.9	35.1	..	100,430	951
31	Okayama	..	18	1,070.8	689.0	938.8	138.2	11.0	114.5	159.3	..	406,419	2,849
32	Hiroshima	..	32	1,054.2	629.3	824.4	113.9	43.3	71.7	93.3	..	285,244	2,295
33	Yamaguchi	..	36	1,041.2	592.2	733.4	126.5	28.1	57.9	76.5	..	245,662	1,789
34	Wakayama	..	2	181.1	162.7	165.1	1.1	—	3.8	14.8	..	21,881	275
35	Tokushima	..	7	721.4	217.1	648.3	452.0	17.5	35.1	53.7	..	129,366	1,446
36	Kagawa	..	2	125.4	78.4	96.8	19.1	0.5	9.0	10.3	..	66,676	347
37	Ehime	..	7	264.5	204.7	226.4	13.2	4.4	13.4	18.5	..	56,143	491
38	Kōchi	..	8	213.1	71.4	98.3	20.6	19.6	31.4	29.9	..	62,820	410
39	Fukuoka	..	32	1,127.8	1,246.9	1,319.8	159.0	66.8	107.1	122.2	..	304,889	2,636
40	Ōita	..	4	2,452.9	220.4	1,054.6	440.6	45.0	92.7	134.8	..	624,279	2,045
41	Saga	..	17	445.7	181.5	316.1	117.5	50.2	20.4	33.4	..	194,657	1,446
42	Kumamoto	..	15	759.4	128.9	640.2	50.6	81.5	43.9	50.4	..	291,035	1,207
43	Miyazaki	..	17	412.5	248.0	359.7	118.1	62.9	22.2	39.3	..	50,526	1,281
44	Kagoshima	..	33	8,679.5	1,390.1	1,445.0	7,122.7	5,988.0	28.9	66.7	..	962,870	12,155
	Total	..	539	46,648.4	22,785.8	32,060.1	14,251.7	9,739.6	2,376.5	3,519.5	..	9,814,133	73,815

Note. — For the province of Yamanashi data are lacking and for the other provinces only incomplete data have been received. The figures in the first column marked with an asterisk also concern transformations into associations under Article 96 of the law of 1909.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

AUSTRALIA.

1. STATISTICS OF AGRICULTURAL EMPLOYMENT IN WEST AUSTRALIA (1907-1916). — *Western Australia: Statistical Register for the Year 1916 and Previous Years*, Part V. Land Settlement, Agriculture, Live Stock and Meteorological Statistics, Perth, 1917.

The following table gives the statistics of regular and permanent employment in agriculture in the various districts of West Australia.

It will be seen that the number of persons employed in agriculture increased rapidly from 1907 to 1912, but after 1912 remained almost stationary, even suffering a slight reduction, doubtless due to the war, in 1916.

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*2. THE POSITION OF LAND SETTLEMENT IN SOUTH AUSTRALIA IN 1916-1917.—
Western Australia: Statistical Register for the Year 1916 and Previous Years. Part V. Land Settlement, Agriculture, Live Stock, and Meteorological Statistics. Perth, 1917.

The following data shew the point to which land settlement attained in the farming year 1916-1917. The figures in the table are for holdings

Statistical district	Privately owned land (including land in process of alienation)			Crown lands under lease or license without option of purchase
	Occupied by owner	Rented from private owner	Total privately owned lands	
	acres	acres	acres	acres
<i>South-western portion:</i>				
Victoria	3,212,067	245,322	3,457,389	10,699,793
Swan	458,080	91,899	549,979	267,905
Wellington	486,035	45,990	532,025	194,301
Sussex	479,068	33,373	512,441	337,155
Norham	2,838,494	103,152	2,941,646	53,965
York	1,328,115	64,695	1,392,810	3,965
Bevelley	891,349	76,855	968,204	9,880
Pingelly	952,098	30,434	982,532	2,150
Narrogin	968,064	57,166	1,025,230	24,410
Wagin	879,902	75,916	955,818	12,876
Katanning	1,001,065	55,587	1,056,652	40,879
Tambellup	966,918	65,611	1,032,529	89,088
Plantagenet	543,672	20,858	564,530	183,704
<i>Total S. W. portion</i>	<i>15,004,927</i>	<i>966,858</i>	<i>15,971,785</i>	<i>11,920,071</i>
<i>North and North-Western portion:</i>				
East Kimberley	3,641	—	3,641	13,782,324
West Kimberley	269	22	291	23,770,309
North-West	18,176	—	18,176	37,724,625
Gascoyne	4,653	82	4,735	24,203,676
<i>Total N. and N. W. portion</i>	<i>26,739</i>	<i>104</i>	<i>26,843</i>	<i>99,480,934</i>
<i>Central and Southern portion:</i>				
Murchison	3,171	—	3,131	12,601,836
East Murchison	522	—	522	7,276,038
Magnet	12	—	14	10,077,272
Margaret	40	—	40	2,752,674
North Coolgardie	—	—	—	4,563,542
Yilgarn	7,486	10	7,496	62,000
Coolgardie	739	84	823	1,586,942
Bucla	—	—	—	1,889,867
Esperance	138,499	1,160	139,659	1,949,548
Phillips River	21,047	—	21,047	261,948
<i>Total C. and S. portion</i>	<i>171,588</i>	<i>1,254</i>	<i>172,842</i>	<i>43,622,667</i>
<i>Grand total</i>	<i>15,203,254</i>	<i>968,216</i>	<i>16,171,470</i>	<i>155,032,672</i>

having an area of more than an acre on which improvements have been effected and which are used for agriculture and stock-farming. Unimproved lands on which there is no stock are left out of account.

FRANCE.

LAW AS TO THE ACQUISITION OF SMALL HOLDINGS BY MILITARY PENSIONERS AND VICTIMS OF THE WAR.

A certain number of measures have been proposed in the Chamber of Deputies to allow the acquisition of rural small holdings by discharged and pensioned soldiers who have been wounded or have contracted diseases while in the army and by widows receiving pensions or having the right for life to indemnities. These proposed measures have been condensed into a single law which has been passed by the Chamber and the Senate and has had force since 9 April 1918.

According to the first article of this law the societies and companies affording credit on real estate and agricultural credit may make individual loans, secured by mortgages : 1) to ex-soldiers and ex-sailors who are in receipt of invalids' pensions from the State for wounds or infirmities incurred during the present war ; 2) to widows in receipt of life pensions or indemnities paid because their husbands have died in consequence of wounds received or illnesses contracted after 2 August 1914 ; 3) to those having the right to life indemnities or pensions in consequence of personal injuries caused by events of the war.

These loans aim at facilitating the acquisition, the organization, the transformation and the reconstitution of small rural holdings which are of less value — exclusively of costs and of insurance premiums — than 10,000 francs, whatever may be the area farmed. The term for repayment of these loans may be as much as twenty-five years so long as this does not make the borrower more than sixty years old when he repays his last instalment. According to article 2, the rate of interest charged on these loans is one per cent. Every borrower must when the mortgage loan is finally conceded to him make a single-premium contract with the *Caisse nationale d'assurance* to provide for the case of his death, thus securing the payment of any annual instalments which may remain unpaid at the time of his death. The amount of the premium may, together with the cost of insurance, go to increase the sum lent on mortgage.

According to article 3, if the payment of an annual instalment of repayment be delayed, the society or company which has made the loan may cause one fifth of this instalment to be paid to itself out of the pension due to the borrower concerned, but the sum thus appropriated out of the pension must not exceed the half of that due nor reduce the unappropriated part of the pension to less than 360 francs. This clause will be inserted in the borrowing contract and will justify any assignment which may be made in accordance with it.

By the terms of article 4, societies and companies affording credit on real estate and agricultural credit receive the funds needed for these loans in the form of advances not bearing interest, repayable in annual instalments within a maximum period of twenty-six years, and deducted from that part of the general endowment of agricultural credit which is reserved for individual long-term credit.

Article 6 contains an opportune provision encouraging large families. The annual instalments which a borrower must repay to a lending society will be diminished by 50 centimes per 100 francs borrowed for each legitimate child born to him after he has contracted the loan. This sum will be annually paid by the State.

GREAT BRITAIN AND IRELAND.

THE FIXING OF AGRICULTURAL WAGES IN ENGLAND AND WALES — *The Labour Gazette*, Vol. XXVI, No. 5, The Ministry of Labour, London, May 1918.

A. Benefits in lieu of Payment in Cash. — In connection with the fixing of wages under the Corn Production Act, 1917 (1), the Agricultural Wages Board (England and Wales) gave notice on 16 April 1918 of an order they intended to issue defining "the benefits or advantages which may be reckoned as payment of wages in lieu of payment in cash for the purpose of any minimum rate of wages for time-work" which may be fixed under the Act.

Such benefits or advantages are stated to be the supply by an employer to a worker of milk, including skimmed or separated milk, and potatoes. The value of milk thus supplied is to be taken to be its current wholesale price in the district; and the value of potatoes their current wholesale price in the district at the time when the main crop of potatoes was lifted.

These wholesale prices in any area are to be ascertained from time to time for the purpose of this Act by the District Wages Committee established by the Wages Board for the area.

As required by the regulations under the Act, the Agricultural Wages Board undertook to consider any objections to this order lodged with it within one month of 16 April 1918.

B. The Fixing of Rates of Wages and of Hours of Work. — The Agricultural Wages Board issued an order, which came into operation on the 20th of May, fixing the minimum rate of wages for male agricultural workers in Norfolk, who are eighteen years old or more, at 30s. for a working week of six days, to include 54 hours of work from the first Monday in March to the last Sunday in October, and 48 hours of work for the rest of the year.

On 14 May the board gave notice that it proposed to fix rates for Berkshire, Buckinghamshire, Cambridgeshire with the Isle of Ely, Bedfordshire and Essex. The proposed rates for male agricultural workers over eighteen years of age are 30s. for a working week of 54 hours in summer and 48 hours

(1) See our issue for October 1917. pp. 67-70.

in winter, in every case except that of Essex where the proposed rate is 32s. for a week of this length.

The board has resolved that payment for overtime shall generally be one and a quarter times as much as payment for regular working hours, the precise rate per hour in each district being however subject to adjustment.

The minimum rates now fixed shall apply to weekly contracts for a week of six days, no deduction being made because the hours fixed by an employer are less than those beyond which overtime rates are payable, or on account of weather provided the workman presents himself at his place of employment at the regular time.

The board has decided that three months after the cessation of hostilities, or on the withdrawal by the Food Controller of all restrictions on consumption, whichever of these first occur, it will formally propose an order which will give effect to the principle that agricultural workers are entitled to a short working day once a week.

The board has appointed committees; a) to consider recommendations from District Wages Committees as to minimum rates of wages for women and girl workers, and to report to the board as to the principles upon which such rates should be fixed, having regard to present conditions; b) to consider and report on the principles to be adopted in fixing minimum rates applicable to hay and corn harvests.

At recent meetings of the board, District Wages Committees have been established for Worcestershire, Gloucestershire, Sussex, Dorset, Staffordshire, Yorkshire, Cumberland, Westmoreland and the Furness District of Lancashire, Derbyshire, Pembroke, Carmarthen and Cardigan, and Cornwall. All the thirty-nine local committees for England and Wales have therefore now been established.

RUSSIA.

THE ABOLITION OF LANDED PROPERTY. — *The Russian Co-operator*, Vol. 2, No. 5, London, April 1918.

The Second Congress of Workmen's and Soldiers' Deputies passed a decree on 8 November 1917 which radically altered the institution of property in Russia. We will give the principal provisions of this measure which abolishes private property and nationalizes all the land of the country.

Articles 1 and 2 are as follows: "The landlord's property in land is forthwith abolished without any compensation. The estates of the landlords, the appanage lands and the lands belonging to monasteries and churches, with all their live and other stock, manorial buildings and all implements, pass to the disposal of the Rural Land Committees and District Councils of Peasants' Deputies, pending the meeting of the Constituent Assembly".

The aforesaid District Councils are instructed to take all necessary measures for preserving order while they confiscate the estates, to note the area

of the estates, and to prepare a detailed specification of all confiscated property.

It was decided that until the Constituent Assembly — which in the event was dissolved before it began its work — should have laid down the lines of the great agrarian reform, the authorities should be guided by certain instructions embodying 242 resolutions of meetings of peasants. These instructions were the following :

1. The right of private ownership of land is abolished for ever. Land can no longer be sold, bought, let, mortgaged or appropriated in any way. The holders of all the land of the State, the appanages, the crown, the monasteries and the churches, of the majorats and of lands held conditionally, forming endowments, owned privately and publicly and owned by the peasants, are expropriated without being compensated ; and all this land becomes the property of the whole people, its use being transferred to all who till it.

All who have suffered by this expropriation are entitled to public relief, but only for the time needed to allow them to adapt themselves to the new conditions.

2. All products found beneath the soil — ores, naphtha, coal, salt, etc. — and forests and waterways of national importance become the exclusive property of the State. Small rivers, lakes and woods pass into the possession of local communities and are subject to the control of the local authorities.

3. Highly cultivated estates and their orchards, plantations, nurseries, hothouses, etc. are not to be divided but are to remain as model estates ; and they pass into the possession of the State or of the local communities in accordance with their size and importance.

Land appurtenant to manor houses or belonging to towns or villages, and orchards and market gardens appurtenant to households, are to remain in the possession of their present owners. Their area and the rate of the tax to be paid by the owners for the use of them are to be fixed by law.

4. Breeding stations of horses, cattle, poultry, etc., whether crown or private property, pass into the exclusive possession of the State or of the communities, in accordance with their size and importance. The question of compensation for them is to be decided by the Constituent Assembly.

5. All the live and other stock of the confiscated estates passes into the exclusive possession of the State or of the communities, according to their size and importance. The stock of small peasants is not however confiscated.

6. All Russian citizens of either sex who are willing to till the soil with their own labour only, or with the assistance of their families, or together with other persons, are entitled to receive land to hold for such time as they are able to till it. All hiring of labour is forbidden.

If any member of a village community become an invalid, the community must cultivate his land until he recover but not for more than two years. Persons who through age or invalidity have lost ability to till the soil lose their right to till it and receive instead a pension from the State.

7. The possession of land is to be equal : that is, it is to be distributed

among the tillers, in accordance with local conditions, in equal plots, the standard plot being either the area which a man can himself till or the area needed to feed him and his family. The forms of land tenure, whether individual, communal, co-operative (*artel*) or other, are to be decided freely by the local community.

8. All the land, when expropriation has taken place, forms a National Land Reserve. This reserve is distributed among the tillers by the local authorities, beginning with the democratically elected rural and urban municipalities and ending with the central provincial institutions. It is reallocated periodically, to suit the growth of the population and the increase in its productiveness. Reallocating must not affect the main portion of an original allotment. Land belonging to persons who have for one reason or another lost or given up possession reverts to the Land Reserve, but the relatives or assigns of these persons have a prior right to have these lands allotted to them.

The cost of manuring and of fundamental improvements is to be refunded to the owner if they have not been fully utilized when possession of the plot affected by them is delivered.

9. If the available Land Reserve in any given locality is not sufficient to provide for the local population, the excess population is provided for by emigration organized by the State which bears all costs of such emigration and of the new settlement of the emigrants.

10. Holdings of less than a certain area which belong to peasants and Cossacks are not to be confiscated.

UNITED STATES.

I. ESTABLISHMENT OF MINIMUM WAGES IN THE CALIFORNIAN CANNERIES. — *California Fruit News*, Vol. 57, No. 1553, San Francisco, 13 April 1918.

The Industrial Welfare Commission of the State of California has lately issued an order amending its order of 16 April 1917 and establishing minimum wages in the canned fruit and vegetable industry in California.

The following are the chief provisions of the new order. It should be premised that the word "minor" connotes in every case persons under eighteen years of age.

Time Work. — No person, firm or corporation shall employ an experienced woman, or suffer her to be employed, on time work in this industry for wages of less than 20 cents an hour. An inexperienced woman or a minor shall not be thus employed for wages of less than 16 cents an hour. A woman shall be deemed to be experienced if she has been employed in the canning industry for three weeks. Every employer in the industry shall furnish any woman he employs, on her demand, with a statement showing the period for which she has been employed in his establishment.

Piece Work. — No woman or minor shall do piece work in the preparation of the following fruits and vegetables for pay at less than the following rates per 100 lbs. prepared :

Apricots	0.35
Pears	0.50
Clingstone peaches	0.27 $\frac{1}{2}$
Freestone peaches	0.17 $\frac{1}{2}$
Plums	0.12 $\frac{1}{2}$
Asparagus	0.17 $\frac{1}{2}$
Tomatoes.	0.04 $\frac{1}{2}$ per 12 quarts

Every adult woman must moreover be guaranteed the learner's wage of 16 cents an hour for the first week of her employment on each product.

Piece work rates may be fixed by individual establishments for the canning and labelling and preparation of all varieties of fruit and vegetables for which no piece work rates have been fixed by the commission. But all adult women employed at rates thus privately fixed must be guaranteed a wage of not less than 16 cents an hour for the first week of employment on each product, and thereafter of not less than 20 cents an hour.

No minor shall work in this industry for more than eight hours in any one day or forty-eight hours in any one week, or for more than six days in any week except in case of emergency. No adult woman shall work for more than eight hours in any one day or six days in any week, except in case of emergency. No adult woman shall work in case of emergency for wages paid at a rate less than one and a quarter times the regular rate. Emergency work is all work performed by any woman on a day on which she has otherwise worked eight hours, or all work performed by any woman or minor in a week in which she or he has otherwise worked six days. All work in excess of twelve hours' work done in any twenty-four hours shall be paid for at a rate not less than double the regular time or piece rates.

Every person, firm or corporation employing women or minors in this industry shall keep a record, in a form and manner approved by the Industrial Welfare Commission, of their names and addresses, the hours for which they work and the sums they earn.

The commission may by license authorize the employment of a woman physically disabled by age or otherwise for a wage less than the legal minimum wage. The commission will fix a special minimum wage for such a woman.

The commission has exclusive jurisdiction over all questions arising as to the administration and interpretation of this order.

* * *

2. THE ORGANIZATION OF THE SALE OF AGRICULTURAL PRODUCTS IN CALIFORNIA. — *Second Annual Report of the State Market Director of California to the Governor of California for the Year ending December 1, 1917.* Sacramento, 1917.

We have already noticed in this review (1) certain proposed amendments of the Act of 1915 which organized the sale of agricultural produce in California. The Californian legislature has accepted the principles which these

(1) See our issue for January 1918, page 81.

amendments embodied, and has passed a new State Market Commission Act, approved on 1 June 1917. The functions of the State Market Commission are now the following :

" First : To act as adviser for producers and distributors when requested, assisting them in economical and efficient distribution of any such products at fair prices.

" Second : To gather and disseminate impartial information concerning supply, demand, prevailing prices and commercial movements, including common and cold storage of any such products.

" Third : To promote, assist and encourage the organization and operation of co-operative and other associations and organizations for improving the relations and services among producers, distributors and consumers of any such products, and to protect and conserve the interests of the producers and consigners of such products.

" Fourth : To foster and encourage co-operation between producers and distributors of any such products, in the interest of the general public.

" Fifth : To foster and encourage the standardizing, grading, inspection, labelling, handling, storage and sale of any such products.

" Sixth : To act as a mediator or arbitrator, when invited by both parties, in any controversy or issue that may arise between producers and distributors of any such products.

" Seventh : To certify, for the protection of owners, buyers or creditors, when so requested, warehouse receipts for any such products, verifying quantities and qualities thereof, and to charge for such service fees sufficient to make the service at least selfsupporting.

" Eighth : To issue labels bearing the seal of the State Market Commission on request of the producer, packer, canner or distributor, for any such products for which State labels have not otherwise been authorized by law, under such rules and regulations as the director may deem necessary, and to charge for such labels such fees as in the judgement of the State Market Director may be proper.

" Ninth : To act on behalf of the consumers of any such products in conserving and protecting their interests in every practicable way.

" Tenth : To improve, broaden and extend in every practicable way the distribution and sale of any such Californian products throughout the markets of the world.

" Eleventh : To promote in the interest of the producer, the distributor and consumer, economical and efficient distribution and marketing of all or any agricultural, fishery, dairy and farm products, produced, grown, raised, caught, manufactured or processed within the State of California "

THE INTERNATIONAL INSTITUTE OF AGRICULTURE

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Sixteen other governments have since adhered to the Institute.

It is a Government institution in which each country is represented by delegates. The Institute is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilizing for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119 30327	yards
1 Crown (100 keller) (Austria-Hungary)	=	10d	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1s 1 ¹ / ₂ d.	at par
1 Declatine (2 tchetweit) (Russia)	=	2.69966	acres
1 Dinar, gold (100 para) (Serbia)	=	9 33/64d	at par
1 Dollar, gold, (\$) (100 cents) (United States)	=	4s. 5 ¹ / ₁₆ d.	at par
1 Drachm, gold, (100 lepta) (Greece)	=	9 33/64d	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1s 7 33/64d.	at par
1 Franc (100 centimes) (France)	=	9 33/64d.	at par
1 Gramme	=	0 03527	oz.
1 Hectare	=	2 17109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093 613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold, (100 bani) (Rumania)	=	9 33/64d.	at par
1 Leu (100 statinki) (Bulgaria)	=	9 33/64d.	at par
1 Lira (100 centesimi, (Italy)	=	9 33/64d	at par
1 Litre	=	0.21998	gallons
1 Mark (100 Pfennige) (Germany)	=	0.0275	bushels
1 Mark (100 penni) (Finland)	=	11 3/4d.	at par
1 Metre	=	9 33/64d	at par
1 Milreis, gold, (Brazil)	=	3.28084	feet
1 Milreis, gold, (Portugal)	=	2s. 2 61/64d	at par
1 Peseta, gold, (100 céntimos) (Spain)	=	4s. 5 19/64d.	at par
1 Peso, gold, (100 centavos) (Argentina)	=	9 33/64d.	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	3s. 11 37/64d.	at par
1 Pund (Sweden)	=	18s. 0 13/64d.	at par
1 Quintal	=	0.93712	lbs.
1 Rouble, gold, (100 kopeks) (Russia)	=	1.96843	cwts.
1 Rupee, silver, (16 annas) (British India)	=	2s. 1 3/8d.	at par
1 Talari (20 piastres) (Egypt)	=	1s. 1d.	at par
1 Verst (Russia)	=	4s. 1 11/32d.	at par
1 Yen, gold, (2 fun or 100 sen) (Japan)	=	1166 61479	yards
1 Zentner (Germany).	=	2s. 0 37/64d.	at par
	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

GREAT BRITAIN AND IRELAND.

AGRICULTURAL CO-OPERATION IN SCOTLAND.

SOURCE:

THE SCOTTISH JOURNAL OF AGRICULTURE, issued by the Scottish Board of Agriculture,
Vol. I, No 2. Edinburgh, April 1918.

§ I. THE BEGINNINGS OF CO-OPERATION.

While Ireland led the way in the United Kingdom in the co-operative organization of agriculture, England and Wales came second and Scotland was last. The tradition of Scottish agriculture is strongly individualistic, and its achievement — the success which has attended the long and patient effort to extend the area of cultivation, and the standard maintained both in arable farming and in the breeding and feeding of live stock — has produced a legitimate pride in individual enterprise and skill. Common action has not however been entirely wanting. There have been numerous farmers' clubs and societies, many of them existing for the purpose of holding annual shows which encourage the improvement of stock and of crops. The long-established Highland and Agricultural Society has the first place, among these. The more recently founded Scottish Chamber of Agricul-

ture is the most important of other associations which aim at promoting the general political and social interests of the farming community.

Co-operative trading was little practised by the Scottish farmer until the early years of the twentieth century. At that time agriculture was recovering, in Scotland as in England, from the depression of the nineties. The bad years had made prominent the difficulties inherent in an industry carried on by a multitude of relatively small enterprises. There were the difficulty due to the high cost of materials procured in small quantities, the difficulty of obtaining guarantees of the cost of these materials, the difficulty of finding a market for perishable produce, the difficulty of obtaining credit from the existing banks, the difficulty of the relatively high cost of insuring live stock. All these obstacles to prosperity affected most the small farmer, especially the small farmer in a remote district.

In 1904 a Scottish Agricultural Commission visited Denmark, and its subsequent report dealt largely with the success which Danish farmers have achieved by co-operating in the preparation and sale of their produce and the purchase of their requisites. They have fostered this success by a system of agricultural education which is closely associated with co-operation. The report bore fruit at a meeting held on 18 January 1905 under the auspices of the Scottish Chamber of Agriculture when a committee was appointed to "formulate a scheme for extending the benefits of co-operation to Scottish agriculturists, with powers to take such action as may appear expedient for giving the same practical effect". The result was the foundation of the Scottish Agricultural Organization Society.

§ 2. THE SCOTTISH AGRICULTURAL ORGANIZATION SOCIETY.

A. Constitution and Finance. — The Scottish Agricultural Organization Society was founded on 25 October 1905. It is a purely propagandist body. It devotes itself to the formation and encouragement of local co-operative societies, but does not itself engage in trade, nor does it concern itself with the general social or political interests of the agricultural community.

A guarantee fund of £1000 was subscribed when the society was founded, and active steps were taken to ensure that there should be such a membership as would cause annual subscriptions to provide a considerable fund. Every member of the society, whether an individual or a body corporate, must hold one fully paid-up share of £1. If a member is a landowner he subscribes at least £1 a year, otherwise at least 5s. a year. Additional money was raised by means of a special donation fund, to which most of the contributors were landowners and which was brought up to £1000. In its early years the society was supported wholly by the subscriptions and by voluntary contributions, and the guarantee fund was annually drawn on to the extent of quite £500. In view however of the national importance of the work the Development Commissioners made in 1911 a grant of half the total expenses which the society incurred in each year. At first this

grant was paid through the Scottish Education Department, but in 1912 its administration and the consequent supervision of the society's affairs were transferred to the newly constituted Board of Agriculture for Scotland. In 1916 the grant amounted to £648.

The affairs of the Scottish Agricultural Organization Society are managed by a president, a vice-president and an executive committee; and it is a condition of the government grant that this committee include two representatives appointed by each of the three colleges of agriculture and one appointed by the chairmen of the county councils of crofting counties. There is a secretary who acts as general organizer; and in 1913 there were also a chief assistant organizer, an assistant organizer, and a special organizer whose work was connected with fishermen's co-operation. In 1914 a special grant was made by the Development Commissioners for the appointment of a Gaelic speaking assistant organizer to work in the Hebrides. The war has greatly depleted the staff.

A special Highland branch of the society was founded in 1908 to promote the co-operative movement in the north and north-west. It has its headquarters at Inverness. Branches of this type have been set up from time to time in other parts of the country.

The Scottish Agricultural Organization Society itself and all the societies affiliated to it are registered under the Friendly Societies Act and have limited liability. Each affiliated society is an independent unit, but the steps preliminary to its formation are guided by the parent society, which also provides for the auditing of its books and, if necessary, for the instruction of its secretary and treasurer in the required methods of bookkeeping.

B. The Affiliated Societies. — In pursuing its aims the Organization Society at first met with many obstacles. The conservative and critical spirit of Scottish farmers was reinforced by the active opposition of the local dealers who found their position as middlemen between the farmers and the manufacturers and merchants threatened. Generally speaking the occupiers of medium sized farms, the small holders and the crofters carried on the business both of purchase and of sale with these dealers and the results were on the whole unsatisfactory. Credit was given for a year or longer and in the remoter districts a system of barter was very prevalent.

Gradually the society gained public confidence and in the thirteen years of its existence it has achieved a noteworthy success. Altogether it formed, up to the end of 1917, 154 societies, classified as follows:

Purchase and Poultry Societies.	70
Poultry Societies	10
Purchase Societies.	50
Stock-breeding Societies	11
Dairy Associations	10
Fishery Society.	1
Credit Society	1
Bee-keeping Society.	1
Total . . .	<u>154</u>

The society's work has not been interrupted by the war, 33 new societies having been affiliated between August 1914 and the end of 1917. Since however other societies withdrew in this period the net increase was one of only 17. Since its foundation the parent society has had to apply for the cancellation of only 20 societies, while five others have amalgamated with larger societies active in their areas. This comparatively low rate of loss is due to the fact that the parent society does not promote the formation of a new society unless there is a reasonable prospect of its success.

The total membership of all the affiliated societies is now 10,266, having increased by 1711 since 1914. Since there are in Scotland about 77,000 occupiers of more agricultural land than one acre, it is estimated that, making due allowance for members not occupying land, about one out of every eight or nine such occupiers is a member of one of the affiliated societies.

The geographical distribution of the societies is interesting. There are 95 in the crofting counties and Bute, namely 55 on the islands and 40 on the mainland, 19 in the north-eastern counties, 28 in the south-western, and 12 in the eastern counties from Forfar and Perth to the Border. While several of these twelve are large trading enterprises it remains true that the bulk of the Organization Society's work has been done in the Highlands and Islands and among the small and middling farmers of the north-east and south-west.

We will briefly review the several categories of societies which have been formed.

Poultry and Purchasing Societies. — In the Organization Society's early days a grant of £50 a year was made to it for three years by the Highland and Agricultural Society for the improvement of poultry keeping. By this means a great improvement was effected in the breeds of poultry kept in the Highlands and Islands, and this was carried yet further by the distribution of sittings of pure breeds under the schemes of the Congested Districts Board. These schemes have been extended since 1912 to the whole of Scotland by the Board of Agriculture and have prepared the way for the constitution of co-operative societies.

In 1912 the Scottish Farm and Poultry Produce Federation, Limited, was formed to act as a marketing agency for the co-operative societies. Its headquarters are at Leith, and it has gradually extended both its buying and its selling business. It is a useful part of its work to keep the local societies constantly informed as to prices.

Co-operation in poultry keeping has been organized with particular success in the Orkneys, whither the attention of the Organization Society was directed very soon after its formation. Most of the farms on these islands are small and the people are industrious and intelligent. The Orkadians were not deriving from their land a profit proportionate to their efforts, and the local fishing industry, which had long been a supplementary source of income, had much declined. Large numbers of poultry were kept but the prevailing system of barter gave them little value, a dozen eggs being reckoned as equal to two pounds of sugar; and there was therefore, as the

lecturers of the North of Scotland College of Agriculture found, little motive for improvement in methods of poultry keeping.

At the end of 1908 six agricultural co-operative societies had been founded in Orkney, and in 1914 fifteen of them were active as well as seven stock breeding societies. The total membership of the fifteen societies was then 892, or one fourth of the whole number of agricultural occupiers in the islands. They sold eggs and poultry to the value of nearly £21,000, and had a turnover of £13,150 for their business in other produce and in agricultural requisites. This achievement followed on much activity. Not only was the Organization Society's general work of propaganda carried on, but the islands were also annually visited by the president and secretary who conferred with the societies, advising them as to their methods and suggesting new developments. The general effects of the activity in the Orkneys have been, as regards poultry keeping, to cause more fowls and fowls of better breeds to be kept, to raise the prices obtained for fowls and eggs and much improve the condition in which they reach the market, and to increase production by from 20 to 75 per cent.

Similar poultry societies have been established in the Shetlands, in Sutherland and Caithness, on the mainland of Ross, in Inverness and Argyll and in the Inner and Outer Hebrides.

At the end of 1917 the total number of Poultry and Purchasing Societies was 70, and there were ten other Poultry Societies which had no purchasing functions. The total membership of these 80 societies was 4600. Forty-three typical societies of small holders had in 1914 a turnover of £40,850 and in 1917 one of £69,200.

Purchasing Societies.— Beside the 70 Poultry Societies which buy requisites for their members, 50 societies exist only for the purpose of conducting purchases. They vary very much in importance. The pioneer among them was the Farmers' Supply Association, formed in 1884, which has its head-quarters in Leith and was affiliated to the Scottish Agricultural Organization Society soon after the latter was founded. In 1914 its membership was 1530 and its turnover £57,000. Other large societies are the North-Eastern Agricultural Co-operative Society, Aberdeen, established in 1906, which has 1330 members and a turnover of £73,000; the Forres and District Farmers' Association which has 154 members and a turnover of £44,000; and the East of Scotland Co-operative Society, Dundee, which has 140 members and a turnover of £14,000. The other purchasing societies are smaller but have done much good work. There are, for example, in the north the Moray Society, which had 52 members and a turnover of £3460 in 1914, while in 1917 it had 78 members and a turnover of £7750; and the Ardross Society, which consists chiefly of smallholders, and had 57 members and a turnover of £3240 in 1914, and 68 members and a turnover of £6600 in 1917. In the south there are the Canonbie Society in Dumfriesshire which had in 1914 a membership of 95 and a turnover of £2430, and in 1917 a membership of 190 and turnover of £5060; and the Dumfries and Galloway Society which had in 1916 a membership of 192 and a turnover of £12,100.

Thirty typical purchasing societies had in 1914 a turnover of £211,150 and in 1917 one of £368,000.

The benefits of co-operative buying are not confined to the co-operators. Frequently the societies have compelled local traders to reduce their terms and have raised the standard of quality for the goods they supply, such as fertilizers, feeding stuffs and seeds.

Co-operative Dairies.—The establishment in a district of a central depot for milk, fitted with refrigerating plant and appliances for making cheese, extends the limits of a local farmer's market, exempts his family from the necessity for excessively early rising, enables him to sell his milk or have it made into cheese at the depot as circumstances render advisable, without himself employing a cheesemaker or buying cheesemaking apparatus, and economizes the time and labour used for transport. The milk depots can moreover adjust the quantity of milk they supply to towns to the fluctuating demand, making cheese of all the surplus.

In view of all these advantages, following on the co-operation which makes depots possible, the Organization Society appointed, very soon after its foundation, a special dairy committee to consider the matter of co-operation among dairy farmers. The district of North Ayrshire was chosen for experiment and in 1908 four co-operative dairy associations had been formed in it. In 1915 there were in Ayrshire five such associations which had a total membership of nearly 200 and an output of milk and other dairy produce worth £85,000. Naturally such societies require a larger capital outlay than do those of other types. The total nominal share capital of the five dairy associations was £3,285 of which £1190 was paid up. They have now been formed into a federation and thus avoid competition and advance their common interests. In 1917 there were seven dairy associations in Ayrshire and three in other counties.

Kilmaurs Dairy Association, Limited, affords a good example of a well conducted co-operative dairy. Its depot was largely built and equipped with the money provided by members, some loans being also received from local landowners. The initial membership of 34 had increased in 1917 to 55. The members hold 1504 shares and 5 per cent. per annum is paid on the paid-up share capital. The following quantities of milk were sent to the depot by members from 1914 to 1917:

1915	530,000	gallons
1916	740,000	"
1917	800,000	"

The average percentage of butter fat was 3.637, the highest individual percentage 3.945. Members are paid a bonus for all milk having more than a stated percentage of butter fat. The total average cost of handling the milk is 0.66 of a penny per gallon. In 1916 there were 1563 cheeses made at the depot from about 98,000 gallons of milk; in 1917 the number of cheeses made was 1619.

Stock-breeding Associations.—In recent years many local stock-breeding associations have been formed, generally in connection with the schemes

of the Board of Agriculture for improving the breeds of horses and cattle, and without doubt they have been encouraged by the popularization of the co-operative principle for which the Organization Society is responsible. Many of them have been affiliated to the Society.

Fisheries. — A special branch of the society's work is the organization of co-operation among the fishermen on the coast of the Moray Firth.

Co-operative Credit. — The society has long realized the importance of forming co-operative credit societies or agricultural credit banks. In 1914 the executive committee drew up model rules for the use of co-operative credit societies, appointed a committee of trustees, and applied to the Development Commissioners for a loan of £5000 to be used for the formation of these societies. This money has not been granted, and so far only one credit society has been instituted, at Kilmallie in Invernesshire.

Some other schemes have, like this for co-operative credit, failed to mature on account of the war, among them plans for co-operative bacon factories, the co-operative sale of dead meat and the co-operative insurance of live stock.

§ 2. THE SCOTTISH SMALLHOLDERS' ORGANIZATION.

A. Foundation and Constitution. — After the passage in 1911 of the Small Landholders' (Scotland) Act had given to smallholders security of tenure and the right to have their rents fixed by a public authority and receive compensation for their improvements (1), a movement towards co-operative organization, which would enable them to take more advantage of their better position, began among smallholders. Accordingly in October 1913 the Scottish Smallholders' Organization was formed and was registered under the Industrial and Provident Societies Acts.

It exists only to organize and educate and does not itself engage in trade, banking or insurance.

It is non-political, its distinctive feature being that it serves only smallholders, of whom more than 50,000 belong to it. It helps them to take full advantage of the Act of 1911 by advising them as to its scope and its application to particular cases. It endeavours to promote the formation of new small holdings by disseminating information as to the legal provisions for this purpose and by helping applicants to prepare and lodge their applications. It also assists the working of the schemes of the Board of Agriculture for the better breeding of horses, cattle, pigs and poultry. It helps to form Women's Rural Institutes and has recently established an Institute of Co-operative Training.

The organization has a board of management which has fifteen members and an advisory council made up of fourteen delegates of the local societies. The officers are a president, a secretary-treasurer, an organizer and local assistants.

(1) See our issue for June 1917, pp. 64-74.

There are now 123 shareholders and 155 fully paid-up shares of £1 each have been issued. The organization receives from the Agriculture (Scotland) Fund, administered by the Board of Agriculture for Scotland, an annual grant equal to half the amount of its expenses. The remaining charge is subscribed.

B. Activity. — The organization has always carried on a work of propaganda in favour of the formation of co-operative societies. Success came slowly, but early in 1917 it had formed 55 trading and credit and 21 stock-breeding societies. The next year was one of rapid progress, so that in April 1918 there were :

104 trading societies,

7 credit societies.

and 30 stock breeding societies.

In addition 80 local committees of the organization, each having a president and a secretary, do some trading; and it is hoped that they will eventually come to be fully registered trading societies.

Many trading societies have been established in the crofting counties, and also in the north-eastern counties where statutory small tenants are numerous. Special attention has been given to forming societies where the Board of Agriculture has constituted settlements of new landholders, as at Lindean (Selkirkshire), Middlebank (Perthshire), Ballencrieff (East Lothian), Pentland Mains (Midlothian), Harrietsfield (Roxburghshire), Kinlochewe (Rossshire), and Ormiclate and Milton (South Uist).

A conference of delegates of the local societies is annually held in Aberdeen.

The business of these societies is the sale of produce and the purchase of agricultural requisites. A need came to be felt for a central buying and selling agency, and in May 1914 the *Scottish Central Markets, Limited*, was instituted as such. It is a registered society and is affiliated to the Scottish Smallholders' Organization. It has a managing director and six other directors; and has issued 266 shares, most of which are paid-up, to 184 shareholders. No interest is paid on shares and the directors receive no fees. The Central Markets has annually received, and has punctually repaid, short-term loans, free of interest, from the Board of Agriculture, for the purpose of helping smallholders to buy seeds, manures and other requisites. The Central Markets receives all the produce which smallholders can send it, paying for it the price it itself receives, less a small percentage to cover expenses. It has two shops and warehouses in Edinburgh and one in Glasgow in which it retails produce. It buys in bulk the requisites of its members — fertilizers, feeding stuffs, seeds and implements — ensuring their quality and charging minimum prices. The following figures give the amount of this society's turnover and show how rapidly its business has developed :

1914	509
1915	4,048
1916	12,525
1917	23,938

The Scottish Central Land Bank, Limited, the first national land bank in Scotland, was established by the Scottish Smallholders' Organization in July 1914. It is managed by a body of seven trustees; and has issued to 22 shareholders 582 shares of £5 each, of which only 5s. has been called up. It is officially recognized by the Board of Agriculture for Scotland from whom it receives an annual grant.

By helping new tenants to buy sheep it has assisted the Board to complete many schemes for the settlement of landholders on sheep farms. Several local credit societies have been formed in affiliation to it and others are in prospect of formation. It has helped many trading societies in their business. Altogether it has lent £3,000, and the loans are being punctually repaid.

The Scottish Central Insurance Society, Limited, which was registered in December 1916, exists to insure the live stock of smallholders. It can charge low premiums because it pays no dividend to shareholders and because it reduces its expenses to a minimum by conducting its business through the registered societies and local committees of the Scottish Smallholders' Organization. It is managed by seven directors. It has issued to nine shareholders 89 shares of £5 each, of which only 5s. have been called up; and it holds securities amounting to £1100 and deposited as a guarantee fund. Numerous proposals for insurance have been accepted and an extensive business is in prospect.

Since October 1913 the Scottish Smallholders' Organization has issued a monthly paper, called *The Scottish Smallholder*, which deals with co-operation, poultry keeping, pig rearing, dairy farming, bee keeping and gardening, the general interests of the smallholder, the work of the Board of Agriculture, pertinent decisions in the law-courts, the work of the colleges of agriculture, and the affairs of allotments.

Thus, in the ways which have been outlined, the Scottish Smallholders' Organization enables smallholders to make the greatest possible use of their land and so promotes the agrarian policy which recent legislation has embodied.

UNION OF SOUTH AFRICA.

AGRICULTURAL CO-OPERATION IN SOUTH AFRICA.

OFFICIAL SOURCE :

LAND AND AGRICULTURAL BANK OF SOUTH AFRICA. REPORT FOR THE YEAR ENDED 31ST DECEMBER 1917. Pretoria, 1918

In our issue for September 1914 we published a general paper on agricultural co-operation in South Africa, showing what obstacles it encounters and what efforts are made to eliminate them.

We will here give data only as to the situation of the co-operative societies in Transvaal, the Orange Free State and Natal, leaving on one side Cape Colony. We draw our information from the last report of the Land and Agricultural Bank. The law assigns to this bank a very important part: it must afford to all the unlimited liability co-operative societies which are active the credit they need, and it exercises a certain supervision over these societies (1).

§ I. THE CO-OPERATIVE MOVEMENT SINCE 1914.

Table I compares the membership of the various societies on 31 March 1914 and on 1 January and 31 December 1917.

In Transvaal the sixteen societies considered had 9,234 members at the end of March 1914. At the beginning of 1915 this number had diminished very slightly, by a little more than 200, and at the end of 1917 it had fallen to 8,752. Therefore we have to notice here not a progress but a retrograde movement, even when we leave out of account societies which have gone into liquidation..

In the Orange Free State we have no material for a comparison with earlier years. In the year under consideration the number of members passed from 500 to 738, that is it increased by 238, which indicates that the co-operative idea made considerable progress.

In Natal co-operation is only in its initial stage but the outlook is promising.

Co-operative Dairy Cattle Societies. — The first society of this kind was established during 1916 at Ennersdale, Natal, under the provisions of the Land Bank Act, 1912, Amendment Act, 1916, which removed the

(1) See the article already cited, pages 26 and 27

TABLE I. — *Number of Members of Co-operative Societies*

Name of Society	Number of Members			Approximate capital value of members
	on	on	on	
	31 Mar. 1914	1 Jan. 1917	31 Dec. 1917	
TRANSVAAL				
1. Centraal Westelike Ko-operatiewe Landbouw Vereniging	513	587	548	261,000
2. Ermelo Ko-operatiewe Vereniging	130	250	221	265,000
3. Heidelberg Ko-operatiewe Landbouw Vereniging .	183	237	256	450,000
4. Hoogevelde Bendrecht Ko-operatiewe " "	567	615	476	300,000
5. Koster Ko-operatiewe Landbouw " "	820	666	557	175,000
6. Lichtenburg Ko-operatiewe Landbouw " "	1,297	1,394	1,320	750,000
7. Lijdenburg " " "	217	305	286	280,000
8. Magaliesberg " Tabakplanters .	2,398	2,186	2,190	1,750,000
9. Marico Boeren " Vereniging	321	238	193	35,000
10. Middelburg Landbouwers Ko-operatiewe Vereniging	721	704	657	500,000
11. Olifantsrivier Ko-operatiewe Dorschwerk	193	207	207	50,000
12. Pretoria Landbouw Ko-operatiewe Vereniging.	86	63	50	40,000
13. Rustenburg Boeren " "	811	904	799	530,000
14. Standerton Ko-operatiewe Boeren " "	452	518	502	375,000
15. Waterberg Landbouw Ko-operatiewe " "	321	229	161	40,000
16. Wolmaransstad Ko-operatiewe Landbouw " "	206	343	329	100,000
Total . .	9,234	9,446	8,752	5,901,000
ORANGE FREE STATE				
1. Excelsior Ko-operatiewe Zuivel Vereniging	—	—	16	80,000
2. Frankfort " Landbouw "	—	—	143	200,000
3. Kestell " Zuivel "	—	35	77	150,000
4. Kopjes " " "	—	—	20	18,000
5. Vrede " Landbouw "	—	465	482	450,000
Total . .	—	500	738	898,000
NATAL				
1. Acton Homes Dairy Co-operative Society	—	—	11	17,000
2. Ennersdale Farmers' " "	—	30	36	50,000
3. Ennersdale Dairy " "	—	10	10	20,000
Total . . .	—	40	57	87,000

anomaly that only rural co-operators of the Transvaal and Orange Free State provinces could obtain help from the Land Bank.

Societies of this kind aim at placing members in possession of an asset, their stock. When the stock becomes productive, the necessity for co-operative creameries, co-operative bacon factories and the like arises naturally.

The Ennersdale society was established on 14 October 1916 and completed its purchase of live stock in the following December. Its ten members obtained 251 cows for £3000. On 31 October 1917 the stock had increased by 173.

Other societies of the same kind have been founded at Acton Homes, Bergville and Moorleigh in Natal, Muisvlakte (Somerset East) in the Cape Province, and Kapes and Paul Roux in the Orange Free State.

It is believed that this form of co-operation helps the small farmer more than any other; and the number of enquiries received seems to show that it will soon be established throughout the Union and particularly in the Orange Free State and Natal.

Co-operative Cheesemaking Societies. — Two co-operative cheesemaking societies have been established in the Orange Free State. They have been working so short a time that a definite opinion as to them cannot be expressed, but their prospects appear to be good.

Co-operation among Wool Producers. — It is likely that wool farmers will establish societies for the purpose of marketing their wool and that they will need financial help from the Land and Agricultural Bank.

Maize Selling Co-operative Societies. — All the societies for the sale of maize in Transvaal and the Orange Free State have granaries or depots at convenient centres for storing the maize. It is graded when it is delivered, and an advance, proportionate to its grade, is made to the member delivering it. All the maize is pooled, and after it has been sold, usually at the end of May, the average value obtained for each grade is ascertained, and on this basis the difference between the amount realized and the amount advanced is paid to the members.

The advance made to a member is intended to provide him with an immediate return on the cost of production. The amount suggested for it by the Land Bank's board is about 6s. 6d. a bag, which would allow 4s. 6d. for the cost of production and a profit of 2s. This would leave between the advance and the sum the maize would actually fetch a margin which would cover the value of the farming requisites supplied to the member concerned. If the price of maize were high throughout the year a small distribution could be made from time to time, instead of a single distribution after the grain has been sold. The directors of the various societies agree in principle with these views of the board; but consider them impracticable because they have to compete with private dealers and must therefore offer advances approximately equal to the prices these dealers pay. The board has therefore not pressed its suggestions, but has endeavoured to influence the directors every year to fix a low rate of advances. Since it has taken this action deferred payments (*achterschots*) of about 2s. a bag have been made

to members for the maize seasons of 1914, 1915 and 1916. Previously the advance was always more than the amount eventually realized.

The only maize selling co-operative society in Natal adopts a different method from the Transvaal societies. It has no depots or granaries and makes no advances : members merely undertake to sell their maize through it. The maize is not pooled but is sold for the members individually, each of them having a separate account. This form of co-operation is simple and inexpensive : it involves no unproductive capital expenditure, no costs of handling and no existence of capital with which to make advances.

Central Agency for Co-operative Societies, Limited. — This agency was founded in order to dispose of the produce of co-operative societies and supply them with farming requisites for sale to their members.

The issued capital is £1800 and accumulated profit and reserves amount to £8773. The commission charged by the agency is now at the rate of 1 ½ per cent.

Turnover. — The following figures show the volume of the business of the societies in the last three years :

	1915	1916	1917
Produce	566,470	454,415	517,582
Farming requisites, including grain bags	127,903	144,365	159,276
Total	694,373	598,780	676,858

It is seen that the sale of agricultural products has diminished sensibly in spite of the rise in prices. The sale of farming requisites has, on the other hand, increased absolutely ; but the rise in prices has certainly lessened this apparent increase in the sale of material and has perhaps outweighed it.

§ 2. THE CREDIT AFFORDED TO CO-OPERATIVE SOCIETIES BY THE LAND BANK

On 31 December 1917 the total amount owed to the Land and Agricultural Bank by the co-operative societies in the three provinces was £ 443,722, this being the sum of its advances.

The advances authorized to Transvaal societies amounted to £ 430,600 and they owed £366,985 on 31 December ; the advances authorized to societies in the Orange Free State amounted to £69,500 and these societies owed £49,170 on 31 December ; to Natal societies advances amounting to £10,100 were authorized and they owed £6,022 on 31 December ; and at that date £21,544 were owed by societies in liquidation.

As regards the purpose of advances :

In the Transvaal fifteen societies whose main business is the sale of produce and the supply of farming requisites were granted £430,100 and

TABLE II. -- *Advances to Co-operative Societies.*

Name of Society	Advances authorized			Total Amount authorized	Amount owed on 31 Dec, 1917 (including interest)
	Transvaal Land Bank	Union Land Bank	Cash Credits		
TRANSCAAL.					
1. Centraal Westelike Ko-operatieve Land- bouw Vereeniging	—	5,000	45,000	50,000	48,187
2. Ermelo Ko-operatieve Vereeniging . . .	—	8,000	22,000	30,000	29,180
3. Heidelberg Ko-operatieve Landb. Vereeniging	—	—	30,000	30,000	29,500
4. Hoogeveld Eendracht Ko-operatieve Vereeniging	—	10,000	39,000	49,000	45,398
5. Koster Ko-operatieve Landb. Vereeniging	—	1,000	15,000	16,000	16,000
6. Lichtenburg Ko-operatieve Landb. Vereen.	—	11,000	28,000	39,000	37,143
7. Lijdenburg " " "	—	—	3,500	3,500	1,000
8. Magaliesberg Tabakplanters Vereeniging	—	—	30,000	30,000	—
9. Marico Boeren Ko-operatieve Vereeniging	5,000	—	—	500	4,554
10. Middelburg Landbouwers Ko-operatieve Vereeniging	—	3,000	57,000	60,000	58,500
11. Olifantsrivier Ko-operatieve Dorschwerk	—	500	—	5,000	280
12. Pretoria Landbouw " Vereeniging	—	7,500	5,000	12,500	8,285
13. Rustenburg Boeren " "	—	7,000	17,000	24,000	21,410
14. Standerton Ko-operatieve Boeren Vereeniging	—	8,100	45,000	53,100	45,996
15. Waterberg Landbouwers Ko-operatieve Vereeniging	—	1,000	5,000	6,000	2,650
16. Wolmaransstad Ko-operatieve Landbouw Vereeniging	—	3,000	19,000	22,000	18,926
Total . . .	5,000	65,100	360,500	430,600	366,979
ORANGE FREE STATE					
1. Excelsior Ko-operatieve Zuivel Verenig	—	1,500	4,500	6,000	1,500
2. Frankfort " Landbouw Vereeniging	—	2,000	25,000	27,000	12,227
3. Kestell " Zuivel Verenig.	—	2,000	2,000	4,000	3,514
4. Kopjes " " "	—	—	2,500	2,500	1,579
5. Vrede " Landbouw Vereeniging	—	2,250	27,750	30,000	30,348
Total . . .	—	7,750	61,750	69,500	49,168
NATAL.					
1. Acton Homes Dairy Co-operative Society	—	—	2,100	2,100	2,110
2. Ennersdale Farmers' " "	—	—	5,000	5,000	1,611
3. Ennersdale Dairy	—	—	3,000	3,000	2,300
Total . . .	—	—	10,100	10,100	6,021

owed £366,735 on 31 December; and one Threshing Machine Society was granted £500 and owed £250 on 31 December.

In the Orange Free State two sale and supply societies were granted £57,000 and owed £42,576 on 31 December; two cheese factory societies were granted £10,000 and owed £5,014 on 31 December; and one dairy live stock society was granted £2500 and owed £1,579, on 31 December.

In Natal one sale and supply society was granted £5,000 and owed £1,611 on 31 December; and two dairy live stock societies were granted £5,100 and owed £4,410 on 31 December.

The only societies which went into liquidation were sale and supply societies.

Table II shows for each society the amount of the bank's advances and the sum still owed on 31 December 1917.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

BRITISH INDIA.

THE RATE OF CO-OPERATIVE PROGRESS IN DIFFERENT PARTS OF INDIA. —
EWBANK (R. B.) in *The Bombay Co-operative Quarterly*, Vol. I, Series I, June 1917.

Nothing is more difficult than to establish a criterion by which the rate of progress in co-operation in various parts of India can be judged. The Indian government annually publishes an abstract showing the number of co-operative societies and their membership, capital and disbursements, and these are indeed four capital facts. But although these statistical tables afford some material for conjecture they do not allow the moral progress involved to be gauged. The number of societies, for instance, is a trustworthy criterion only when it is considered in relation to the area and the population of each province and the average membership and average capital of societies.

In the following tables we place in juxtaposition figures for 1914-1915 enabling the reader to judge how far the mere number of societies is a satisfactory index of progress.

I.		II.	
Name of province	Total number of societies	Name of province	Number of societies per 100,000 inhabitants
1. Punjab	3,337	1. Punjab	16.7
2. United Province	2,962	2. Central Provinces	16.5
3. Central Provinces	2,297	3. Burma	14.1
4. Bengal	1,992	4. Mysore State	12.5
5. Madras	1,600	5. United Provinces	6.3
6. Burma	1,489	6. Bengal	4.4
7. Bihar and Orissa	1,087	7. Bombay	4.3
8. Bombay	836	8. Madras	3.9
9. Mysore State	725	9. Bihar and Orissa	3.1

III.

Name of province	Number of societies per 1000 square miles	Name of province	Average membership of a society
1. Punjab	33.3	1. Bombay	103
2. United Provinces	26.4	2. Madras	74
3. Bengal	25.5	3. Mysore State	72
4. Mysore State	25.0	4. Bengal	54
5. Central Provinces	23.2	5. Bihar and Orissa	50
6. Bihar and Orissa	13.1	6. Punjab	47
7. Madras	11.3	7. United Provinces	40
8. Burma	9.25	8. Burma	26
9. Bombay	6.8	9. Central Provinces	20

Name of province	Average working capital per society Rs
1. Bombay	9,775
2. Madras	8,880
3. Punjab	5,738
4. Burma	5,580
5. Bengal	5,519
6. Mysore State	4,256
7. United Provinces	3,966
8. Bihar and Orissa	3,359
9. Central Provinces	3,143

The actual amount of working capital invested in the co-operative movement must again be judged relatively to the number of members. Nothing stultifies the work of a co-operative society as much as inadequate finance. The figures for 1915-1916 are as follows :

II.

Name of province	Working capital	Name of province	Working capital per member
	Rs.		Rs.
1. Punjab	2,65,63 000	1. Burma	221
2. Madras	1,68,86,000	2. Punjab	139
3. Bengal	1,24,48,000	3. Central Provinces	132
4. United Provinces	1,20,34,000	4. Madras	123
5. Burma	1,63,39,000	5. Bengal	102
6. Bombay	90,66,000	6. Bombay	91
7. Central Provinces	87,09,000	7. United Provinces	90
8. Mysore State	44,20,700	8. Bihar and Orissa	70
9. Bihar and Orissa	43,27,000	9. Mysore State	68

The figures in Statement II are misleading because the working capital of provincial banks, central banks and primary societies has been taken together in order to obtain the totals. The capital of a central bank figures again in the capital of the primary societies to which it is advanced, and is therefore reckoned twice over in the provinces which, like the United Provinces, depend on a central bank system. Where there is also a provincial bank, as in the Central Provinces and Bihar, the same capital is frequently reckoned three times over.

To counteract this error Statement III shows the actual amount of working capital available per member of the agricultural societies, for whose benefit the whole system ultimately exists.

Name of province	Working capital available per member in agricultural primary societies
	Rs.
1. Burma	130
2. Punjab	105
3. Madras	74
4. Central Provinces	70
5. Bombay	60
6. Bengal	60
7. United Provinces	48
8. Mysore State	44
9. Bihar and Orissa	39

Of the following statements the first shows the amount of deposits in agricultural societies, the second the amount of deposits per head received from members of societies of all kinds taken together, and the third the total reserve fund of all classes of societies.

Name of province	Amount of deposits in agricul- tural societies lakhs	Name of province	Amount of deposits per member Rs.	Name of province	Total reserve fund lakhs
1 Punjab	24.53	1. Bombay	20	1. Punjab	29.16
2 Bombay	15.22	2. Bengal	10	2. United Provinces	9.90
3. Bengal	8.80	3 Madras	8	3. Bengal	8.31
4. Madras	7.76	4. Punjab	7	4 Burma	8.18
5. Bihar and Orissa	4.50	5. Mysore State . . .	7	5. Madras	8.06
6. United Provinces .	2.63	6 Central Provinces .	3	6. Bombay	4.70
7. Central Provinces .	1.48	7. Bihar and Orissa	3	7. Central Provinces .	3.77
8. Burma	1.30	8. United Provinces .	1	8 Bihar and Orissa .	2.69
9. Mysore State . . .	1.14	9 Burma	1	9. Mysore State . . .	1.59

Space cannot be spared for more of these statements. At least fifty of them would be needed to afford a thorough view of the relative position of each province in all the various aspects in which progress in co-operation can be studied.

(CANADA.

THE PRODUCTION AND THE CO-OPERATIVE SALE OF WOOL. — Professor TISDALE of the University of Saskatchewan, *The Future of Canadian Wool in Farmer's Advocate and Home Journal*, Vol. LIII, No 1341, Winnipeg, 5 June 1918.

Present circumstances are extremely favourable to producers of wool ; and it is likely that this situation will be maintained for many years after the peace for there has been an almost general reduction of the world's flocks and there will be in all countries a great demand for wool with which to replace exhausted stocks and produce large quantities of cloth.

In 1913 there were 2,128,531 sheep in Canada ; in 1917 there were 2,369,358. Thus in the four years their number has slightly increased, an interesting fact as things are at present.

We have already noticed the efforts of the federal and the provincial governments to develop the advance sale of cleaned and graded wool (1). This enterprise becomes more important year by year and is one of the most influential factors developing sheepfarming in Canada. The appended table shows the progress made in selling graded wool co-operatively in the various provinces.

Some of the figures referring to 1917 are approximate only, but there is reason to believe that they are under rather than over the actual figures which it has not been possible to obtain. The table shows that there was an enormous increase in the co-operative sale of wool between 1914 and 1917, and that it has extended to all Canadian provinces. About 90 per cent. of the sheepfarmers adopted this new method of selling in 1917.

It is also interesting to notice that under the co-operative system selling prices have always been distinctly higher than those which local storekeepers and wooldealers have offered. It is estimated that graded wool, sold co-operatively, fetched on an average from 3 to 5 cents a pound more than the average price obtained by farmers who sold their wool directly, and in some cases this difference was from 8 to 10 cents a pound. In 1914 the average price throughout the Dominion of graded wool was 26 cents a pound; in 1915 it was 27.2 cents; in 1916 it was 32.83 cents; and in 1917 it was a little more than 60 cents. Thus last average will probably be equalled this year, while the quantity of wool sold is expected to show an increase of some two million pounds.

Province	1914		1915		1916		1917	
	Number of members	Quantity sold (lbs.)	Number of members	Quantity sold (lbs.)	Number of members	Quantity sold (lbs.)	Number of members	Quantity sold (lbs.)
Prince Edward Island. . .	—	—	58	5,496	382	28 176	—	24,000
Nova Scotia . . .	—	—	163	12,271	224	18,441	—	37,804
New Brunswick. .	—	—	9	1,103	39	5,130	—	6,558
Quebec	93	12,000	975	104,192	1,616	168,701	1,876	218,658
Ontario . . .	69	15,742	81	20,295	69	17,989	—	298,790
Manitoba	138	44,059	193	75,425	440	150,939	—	170,000
Saskatchewan .	179	69,404	318	150,328	487	179,890	660	388,888
Alberta	63	134,427	109	203,368	609	1,138,470	750	1,850,000
British Columbia .	—	—	—	—	62	15,751	60	10,200
Total	542	275,632	1,916	577,478	3,928	1,723, 87	3,346	3,104,808

(1) See our issue for February 1917, page 14.

FRANCE.

AGRICULTURAL, CO-OPERATIVE SOCIETIES — *Chamber of Deputies: Report made, in the name of the Budget Commission charged to examine the proposed law fixing the ordinary budget of the civil service for 1918, the Ministry of Agriculture and Viticulture, by M. Adrien Durac*

Agricultural credit and co-operation depended in 1914 on four fundamental laws: that of 5 November 1894 which created the local credit funds; that of 31 March 1899 which instituted regional credit funds and placed at their disposal the funds paid into the Treasury by the Bank of France, in virtue of the agreement made with the latter when its privilege was renewed; that of 29 December 1906, which regulates the allocation by the regional funds of advances to the agricultural producers' co-operative societies; and that of 19 March 1910 which institutes individual long-term credit for small rural holdings. Thus before the war the funds of agricultural credit already had the task of granting, to individuals or collective bodies, long and short-term loans for the work of agricultural production. Since the war, laws arising out of existing circumstances have been added to those in force and have considerably enlarged the field of action. They are:

1st. The law of 6 October 1916 which provides that advances from the funds for agricultural credit may be made to the communes by the regional funds for the purpose of bringing abandoned lands under cultivation.

2nd. The laws of 2 January and 7 April 1917 which extend the benefit of these advances to the departments and co-operative societies and associations for mechanical cultivation which are occupied with restoring to productivity lands which have remained incultivated.

Immediately after the law of 7 April 1917 had been passed co-operative societies for the cultivation and the farming in common of the soil arose. The first of them were due to the Departmental Committee for the Cultivation of Abandoned Lands of Haute Garonne which had unsuccessfully tried to form communal committees for agricultural action. This departmental committee founded seven co-operative societies, in form civil societies, which grouped 155 members representing more than 2,000 hectares of land. From eight to ten analogous co-operative societies are on the point of being constituted in the *arrondissement* of Mirande (Gers), one in the neighbourhood of Dreux (Eure-et-Loir) and another in the Isère.

The co-operative societies of Haute Garonne have taken the form of civil societies embracing several communes, and their support is derived from the land of their members which is delivered to them. Only half the profits, if there are any, is divided among the members, proportionately to the land they have contributed and its cultivated area. The other half constitutes a common fund which serves to meet the losses of similar societies in the same department. If the reserve funds are insufficient to cover losses, the excess of these is borne and distributed according to the

conditions fixed for the distribution of profits, that is proportionately to the land respectively contributed by the members and its cultivated area.

The co-operative societies of Gers are organized on the same bases.

In Eure-et-Loir, on the other hand, the form of a joint-stock company, having a variable capital, has been preferred.

ITALY.

1. THE NEW REGULATION OF THE "SOCIETÀ DEGLI AGRICOLTORI ITALIANI".

Bollettino Mensile della Società degli Agricoltori Italiani, Rome, No. 4, 30 April 1918.

At the general meeting of this Society of Italian Agriculturists, held in Rome on the 14th of last April, certain important modifications of the society's by-laws were discussed and approved. They aim at stimulating the growth of the association which now groups 3,597 members (1). The innovations, which had been prepared by an *ad hoc* committee, fall under the following heads :

1) Questions concerning agricultural policy come first of all within the province of the society. Article 1 of the new by-law states that the society will "carry out and support the initiative of national agricultural policy". This statement confirms and reinforces the last clause of article 2 which states that the society proposes to reach its ends not only by supervising the application of laws relating to agriculture, but also by evoking other legislative measures which will be profitable to agriculture.

2) Another notable innovation is the decentralization of the society by the institution of branches for departments, provinces, *circondarii* and *mandamenti*. Such decentralization aims at widening the bases of the association, making a deeper and closer study of local agricultural questions and a better guardianship of agricultural interests within single districts possible. In this way the economic and agricultural position of each district can be reviewed, its variations followed, the improvements necessary to it indicated, and a practical work of supervision carried on. This detailed work which the branches carry on will, as the report of the committee which studied the innovations explains, be connected with the central office and elaborated by the society's administrative council, which will thus collect elements of inspiration for duties which will lead to a sane agricultural policy in relation both to general legislative action and to district and local enterprise. There should be legislation which varies in accordance with the different needs of the agricultural classes, and the changing demands of the home and foreign trade in the products of the soil. The institution of branches further allows members at a distance, who do not habitually attend the meeting at Rome, to assemble and to take part in elections by sending their own representative to the central council, for the presidents of

(1) See the report for 1917 of the president of the society which was distributed at this general meeting.

departmental branches belong by right to this body, and to take part in initiative of local interest. By simple formalities membership of the same council is also acquired by the presidents of the larger district agricultural associations, such as the *Associazione Agraria Friulana*, the *Società Agraria di Lombardia*, the *Associazione per gli Interessi Agrari del Mezzogiorno*, and the *Associazione Agraria Bolognese*, and thus it is possible to enter into intimate and profitable relations with these societies which boast of noble traditions and develop an admirable activity.

3) The member's subscription has been reduced to ten liras a year and thus all agriculturists are enabled to enter the society.

4) Finally, the institution of a *permanent committee of organization and propaganda* is of the first importance. It has already begun its work and has decided to publish a daily agricultural newspaper. This decision is based on the necessity for according a larger and worthier place in the Italian press to agricultural policy, in order that public opinion and the guiding agencies of the State be interested in it to an extent correspondent to the importance of the continually growing problems which will have to be solved during and after the war

A new *technical committee for the preservation of agricultural products and the preserving industry* has also been formed. Altogether therefore the permanent technical committees now number sixteen. They are the committees of: 1) Agricultural instruction and science as applied to agriculture; 1 a) Institutions for agricultural experiments and education and the staffs of these institutions; 2) The cultivation of cereals, meadows and herbaceous plants in general and the requisite fertilizers and seeds; 3 a) Stockbreeding in general; 3 b) Specialized horse-breeding; 4) Forestry and forest industries; 5) Viticulture and the production of wine and of alcohol; 6) Olive growing and the production of oil; 7) Sericulture and the production of mulberries; apiculture, fisheries; aviculture; 8) Fruit-growing, horticulture and gardening; 9) Rural mechanics, building, improvements and irrigation; 10) Diseases of plants; 11) Conditions of agriculture and the agricultural classes at home and abroad, agricultural contracts, rural legislation, credit and co-operation in agriculture; 12) Trade in agricultural products and live stock, cost of transport, customs; 13) Preservation of agricultural products, food-preserving industry; 14) Permanent committee of organization and propaganda.

The society's general meeting was followed by the eighteenth Congress of Italian Agriculturists at which various subjects were discussed, among them that most important question of forest stocks. A resolution instituting in Italy provincial agricultural chambers was approved, and another to the effect that laws should be proposed protecting small properties, and forming family properties which would be inalienable, indivisible and exempt from sequestration. A third resolution concerned improvements and irrigation in the south.

* *

2. THE "FEDERAZIONE NAZIONALE DELLE COOPERATIVE AGRICOLE". —
La Cooperazione Italiana, Milan, No. 1293, 26 April 1918.

As our readers will recollect (1) this National Federation of Agricultural Co-operative Societies declared itself formed on the 24th of last February at a congress of co-operative societies held at Reggio Emilia. Its object is essentially to give and new a vigorous impulse to these societies and to regularize and render scientific their activity (2). We will note the most interesting of its by-laws which were recently approved by its federal council. Its headquarters are at Bologna, one of the greatest agricultural centres of Italy, and it aims at "co-ordinating and bringing to bear on a larger development of agriculture all the scattered energies of labour and all co-operative effort, creating in Italy a weighty combination of productive energy which will enable field-labourers, stimulated by a more direct interest, to become a factor which will raise the economic condition of the labouring mass of the population and of the country. To reach this end it proposes :

a) to favour the constitution and development of agricultural co-operative societies, colonies and collective farms in all districts of Italy ; b) to maintain the moral and economic superiority of agricultural co-operation, fighting all forms of that exploitation and parasitism of middlemen which intervenes between the landowner and the labourer, and facilitating in every way the direct taking of farms by tillers of the soil united in agricultural co-operative societies, c) to institute commercial offices and agencies for the collective acquisition of primary materials necessary to agriculture, and of agricultural machines, implements, etc., and for the production of fertilizers and articles useful to agriculture ; d) to provide for a better protection of agriculture from losses caused by fire, hail, the diseases and mortality of live stock, etc., by means of mutual insuring organizations ; e) to assume the management of farms directly or on behalf of federated organizations ; f) to found scientific bureaux and experimental laboratories in order to bring to agricultural activity the greatest possible contribution in suggestions and practical aid.

Agricultural labourers' co-operative societies and their local groupings in Italy may without distinction belong to the federation if they are open to all and if they develop their class activity under the direction of the national agencies for co-operation and defence. But in order to be admitted a co-operative society must be enrolled by the National League and must belong to the National Federation of Tillers of the soil.

1) See our issue for April 1918.

(2) In a meeting held at Rome on the 14th of last April on the initiative of the Catholics the formation of another federation, the National Federation of Agricultural Co-operative Societies of Production and Labour, was resolved. See in this connection *Asiome Sociale*, the organ of the Economic and Social Union of Italian Catholics, Faenza, No. 8, 15-30 April 1918.

Working funds are supplied by : 1) the contributions of co-operative societies and their federations; 2) a percentage on the business done and on profits, allocated to the federation either by the by-laws or by special resolution ; 3) the receipts derived from the direct management of the offices, trading establishments, insuring institutions, industrial establishments, etc., held by the federation ; 4) the extraordinary income, gifts, legacies, compensations, which the federation may receive.

The federated co-operative societies are obliged annually to pay a contribution of 25 liras for every 100 members enrolled, and are also obliged to subscribe 100 liras for every 25,000 liras of their share capital.

The agencies by means of which the federation is active are the general meeting of members, the council of administration and the college of accountants. This last also acts as a college of arbiters to compose and resolve the differences which may arise between the co-operative societies and the local federations or consortia, between the co-operative societies and the National Federation, and between the local federations or consortia and the National Federation. To these agencies there is added a technical committee, which is consultative and has five members, chosen from experts in co-operation and agriculture who do not belong to the federated societies.



3 THE FORMATION OF CONSORTIA FOR THE MECHANICAL TILLING OF THE SOIL. — *Bollettino dell'Agricoltura*, Milan, 17 May 1918

Since last year the Agricultural Committee of Casalmaggiore (Cremona) has, in view of the necessity of practically solving the important problem of tilling the soil mechanically in the lower Cremonese, promoted and brought about the formation of small associations of agriculturists who practise mechanical ploughing in common. The consortia hitherto constituted and now regularly at work number fifteen, and are scattered among the various communes of the *circondario* of Casalmaggiore. The advantages which local agricultural economy derives from them quickly became so evident that the aforementioned committee determined, in view also of the possibility of rapidly bringing into being other associations of the kind, to unite the consortia themselves in a single organization to be known as the Federation of the Consortia of the Lower Cremonese for the Practice of Mechanical Ploughing. This Federation proposes to constitute new consortia, to acquire fuel in common and to conduct a workshop for repairs.

In order to favour this movement the Ambulant Chair of Agriculture of Cremona has compiled and circulated the following model by-laws for a consortium for the acquisition and use of tractors (motor ploughs). The value of a consortium of the kind contemplated is that it can be annexed to any co-operative society already in existence — a rural fund, a collective cellar, a collective dairy, an agricultural union, etc.

1. The members of... form a consortium for the acquisition of mechanical tractors and their use in the fields they cultivate.

2. The consortium will be administered and managed by the co-operative association, in accordance with rules fixed in agreement with the members of the consortium.

3. The co-operative association will have the special management of the consortium, being guaranteed by the members of the latter for the capital it has paid and has to pay. The security will be supplied by the authorization to take advantage of the credit which the members of the consortium enjoy with the co-operative association or by the deposit of consolidated loan or other paper.

4) Every member of the consortium will take one or more shares. Each share will give the right to use the tractors overacres, equal tohectares.

5) The work of the tractors will be debited to the members in proportion to the area ploughed. The price charged for ploughing should include all running expenses and an amortization quota to be fixed very carefully. The method of debiting costs will be fixed by the administration of the co-operative society.

6) Tariffs will be fixed for the various areas which the members of the consortium wish to have ploughed with tractors in addition to the areas which they have the right to have thus ploughed, and other tariffs for non-members.

7) As regards the order in which land is ploughed, the areas corresponding to the quotas paid by members will be ploughed first, then additional areas belonging to members, then areas belonging to non-members.

8) The land of members will be ploughed in turn, according to a fixed order.

SPAIN.

THE CO-OPERATIVE DAIRY OF THE "CASA DE GANADEROS" OF SARAGOZZA.

— Memoria sobre el funcionamiento y resultados de la lechería cooperativa en el año 1917 (*Report on the Working of and the Results obtained by the Co-operative Dairy in 1917*). Tip Encuadernación "Heraldo", Saragozza, 1918.

The report on the year 1917 which we are about to examine shows that the Co-operative Society for the Sale of Milk, which the *Casa de Ganaderos* in Saragozza founded in 1915, attained last year to noteworthy results.

As we are dealing with one of the first co-operative societies of its kind in Spain it is opportune to sketch its organization.

Only members of the *Casa de Ganaderos* may join the co-operative society as suppliers of milk, and co-operators are chosen by preference from the active members of the Aragonese Stockfarming Agricultural Syndicate. Members supplying milk are obliged to contribute all the milk produced by their registered cows, guaranteeing its quality. There are special rules for the keeping of byres, and special veterinary surgeons, nominated by the *Casa de Ganaderos*, are appointed to inspect the byres and the cattle.

The price of the milk received from the suppliers is paid weekly and is fixed by the directing council, in agreement with the suppliers' general council, on the basis of the current price.

One centime for every litre of milk obtained from suppliers belongs to the *Casa de Ganaderos*, as compensation for the hire of premises, for interest on advanced capital, for amortization and for other costs which the *Casa* meets directly. All other expenses attached to the business are met by the co-operative society which, after deducting from the product of sales the centimes due to the *Casa de Ganaderos* and the amount of other expenses, distributes the residue among members in proportion to the amount of milk each of them has contributed.

During the whole of 1916 the co-operative society also practised the insurance of live stock belonging to members; but this insurance was, by a resolution of the members, directly assumed by the *Casa de Ganaderos* in 1917.

As regards results obtained in the year we are examining, the report shows that the number of supplying members increased from 43 to 53, exclusively of those who gave notice before the end of the year that they wished to be enrolled.

The general expenses borne by the *Casa de Ganaderos* for the provision of equipment etc. amounted to 8,312.87 pesetas. It should be noticed that besides the insurance of live stock, already mentioned, it arranged loans for the purchase of milch-cows, secured by the cows, and for the purchase of food for live stock which the war made most difficult.

Another series of difficulties had to be overcome in order to provide the machinery and material which are indispensable to treating milk, and which entailed large expenses, obliging the council to increase the price of unbottled milk from 35 to 50 centimes the litre, and to increase advances to suppliers proportionately.

During 1917 the members brought 682,959.6 litres of milk to the dairy, and this was distributed and treated as is shown by the following figures:

Month	Bottles of milk			Unbottled milk	Fresh butter		Salt butter		Cream	Cheese
	of 1 litre	of ½ litre	of ¼ litre	Litres	Kilo-grammes	Pack-ets	Kilo-grammes	Pack-ets	Litres	
January . .	18,717	1,623	1,420	22,619	53	1,588	4.00	1	41	—
February . .	18,387	1,299	1,413	23,369	71	1,779	—	—	25.75	—
March . .	21,932	1,321	1,565	28,464	104	2,672	—	—	92	74
April . .	21,712	1,643	1,495	29,607	117	2,572	—	—	85.50	114
May . . .	21,424	1,816	1,794	29,954	59	1,184	—	394	66	67
June . . .	14,014	1,515	1,904	32,251	43	739	—	564	60	65
July . .	8,957	1,098	1,412	36,669	34	736	—	402	3.25	55
August . .	5,794	849	1,280	34,680	40	1,070	3.30	100	2	—
September .	7,591	682	1,471	40,765	57	1,091	20.46	355	5	—
October .	12,744	704	1,661	39,257	—	8	13.40	933	—	—
November .	14,202	966	1,333	38,966	—	—	—	—	—	—
December .	15,239	1,167	1,220	38,078	—	—	—	—	—	—
Total	161,273	14,742	17,574	394,707	578	13,439	41.160	2,755	380.50	375

The income obtained by the sale of milk and its derivatives was 244,619.54 pesetas and expenses were 244,181.46 pesetas. The balance 438.08 pesetas, was distributed among the members in proportion to the quantity of milk they had supplied.

It appears both from the data as to production and sale and from those as to expenditure that this co-operative society, which has hardly reached its third year of activity, is economically in such an excellent position that it may be expected to continue its course towards a complete attainment of the objects at which the *Casa de Ganaderos* aimed in instituting it, namely the successful management of dairies in the public interest, the acquisition of milch-cows, the organization of the insurance of live stock, and the treating of milk in accordance with the dictates of hygiene.

Part II: Insurance and Thrift

CANADA.

PROTECTION OF FORESTS AGAINST FIRE IN 1916-1917 (1).

OFFICIAL SOURCE:

REPORT OF THE DIRECTOR OF FORESTRY FOR THE YEAR 1917 (Part VI Annual Report,
Department of the Interior, 1917) Ottawa, 1918.

§ 1. VALUE AND EXTENT OF FORESTS.

The forests of Canada are a very valuable asset to the country, and in spite of the changes due to the war forest industries pursued in 1916 a steady course. A less production of lumber was compensated for by an increased production of pulpwood and ties and poles.

The total value of the forest products of Canada in 1916 is estimated as follows :

Lumber, lath and shingles	\$ 66,075,000
Firewood	62,000,000
Pulpwood	19,975,000
Fence-posts and rails	8,000,000
Cross-ties	3,750,000
Square timber exported	185,000
Cooperage	1,250,000
Poles	575,000
Lags exported	850,000
Tanning materials	140,000
Round mining timbers	750,000
Miscellaneous exports	280,000
Miscellaneous products	9,000,000
Total	<hr/> 172,830,000

(1) See also, on this subject, our issue for August 1917, page 26.

In 1916-17, \$750,000 were appropriated to the Forestry Branch by the Canadian government.

The forests include first 23,026,640 acres within the forest reserves; and secondly 138,000,000 acres in the districts of the fire-rangers, namely 132,000,000 acres in the provinces of Manitoba, Saskatchewan and Alberta and 6,000,000 acres in the Railway Belt of British Columbia.

§ 2. GENERAL ORGANIZATION OF PROTECTION AGAINST FIRES.

Originally the staff for the protection against fires was placed under the supervision of Crown Timber Agents. As the Forestry Branch extended its scope it gradually took over this supervision, but the direct work continued in many instances to be done by the Crown Timber Agents who reported on all matters relating to protection against fire to the Superintendent of Forestry. Eventually chief fire rangers were appointed to superintend the rangers in place of the Crown Timber Agents. Later the forest reserves were set apart, and a separate staff was organized for their management on the model of the United States Forest Service. The remaining forested area constitutes the fire rangers' districts, the organization of which is readjusted as further forest reserves are created. Such extension of the reserved area, by parliament, has generally kept pace with the growth of a public sentiment in favour of the preservation of national resources and has therefore been intermittent and irregular. Thus in British Columbia forest reserves were constituted in response to a request from the community for the protection of the watersheds of streams used for irrigation. Those on the eastern slopes of the Rocky Mountains in Alberta followed upon propaganda work which convinced the men of the prairie provinces of the connection between the mountain forests and the flow of the great prairie rivers.

The organization of protection in the forested area outside the reserves, that is in the fire-ranging districts, differs from that within the reserves for the following reasons:

- 1) The object to be attained is not the protection of watershed areas lightly covered with inferior species of trees but the preservation of resources in saleable timber which have a direct rather than an indirect value.
- 2) The system of patrols is less intensive, and the districts have been less opened up by improved means of communication and transport.
- 3) Regulations as to fire permits, the supervision of the burning of the settlers' slash and the proximity of settled areas bring the firerangers into more intimate contact with the general public.
- 4) Appointments to the fire ranging staff are only temporary, instead of permanent.

There is a distinction between the fireranging in the Prairie Provinces and in the Railway Belt of British Columbia. In the former, particularly in the north country, there are large areas where settlement is so remote and timber so scattered and inaccessible that they will probably be best managed

for a long time by a loosely organized fire-ranging staff appointed only for the dangerous season. But in British Columbia the fire-rangers' districts comprise areas in which there are valuable woods of saleable timber and sources of reproduction of calculable worth, and these should receive the utmost protection possible. The conditions for growth and the facilities for transport are such that these forests make the future development of the lumbering industry possible. In British Columbia, therefore, the fire-ranging organization should be looked upon merely as a temporary makeshift, and all non-agricultural lands in the Railway Belt should eventually be set aside as forest reserves.

§ 3. FOREST FIRES IN THE DOMINION AS A WHOLE.

The season of 1916 brought far fewer risks of fires than the average season. In the Railway Belt of Columbia the driest period, which occurred in August, was of short duration and was preceded by an exceedingly heavy rainfall in July. In the provinces of Manitoba, Saskatchewan and Alberta the temperature in March and April was high and there were some fires in May. But comparatively heavy rains in the latter part of May and throughout the rest of the season reduced the danger, and there were altogether fewer fires than in either of the two previous seasons.

The total number of fires reported during the year was 891, as compared with 1,455 in 1915 and 1,986 in 1914. Of the fires in 1916 there were 146 which burnt over an area of 10 acres or more, as compared with 343 in 1915 and 388 in 1914. The percentage of the total number of fires which burnt over ten acres or more was 16 in 1916, 24 in 1915 and 20 in 1914.

The total area over which the fires burnt in 1916 was 116,310 acres. This area comprised 2,000 acres of saleable timber, namely 4,608,000 feet board measure; 4,340 acres of cordwood bearing 57,664 cords; and 20,684 acres of young growth. The fires going beyond ten acres spread over an average area of 796 acres each, as compared with 3,932 acres in 1915 and 1,804 acres in 1914.

The following figures show the causes of forest fires in Canada in 1916. For purposes of comparison figures referring to percentages are also given for the two previous years.

Causes of Fires	Number of Fires in 1916	Percentages		
		1916	1915	1914
Unknown	270	30	30	41
Campers and travellers . .	174	20	33	14
Settlers	167	18	14	24
Railways	174	20	13	13
Lightning	59	7	4	4
Lumbering	30	3	2	1
Incendiarism	5	1	1	1
Disposal of brush (by others than settlers)	—	—	1	—
Other causes	7	1	2	2
	841	100	100	100

It is seen that in spite of the fact that attention has been called to the subject all over the country hundreds of fires still occur every year owing to carelessness. Much is being done to prevent this by means of the press, public lectures and the public schools and in other ways. Officials of the Forestry Branch have visited the schools and talked to the pupils on this matter.

In the three years reviewed from 18 to 24 per cent. of the fires have been caused by settlers, who make fires to clear their lands and often are not able to master them. On the Dominion forest reserves the setting out of fires is controlled by provisions of the Forest Reserves Act, and this legislation, with the regulations made under it, meets the needs of the case. But on the large areas of Dominion lands outside the forest reserves the matter is governed by the provincial fire Acts or the homestead regulations, and except in British Columbia none of these contained until January 1917 any provisions which gave power to control the setting out of fires. The Fire Act of British Columbia has a clause which makes a permit necessary before a fire can be set out, and it has been in force for a number of years, and has worked successfully and with increasing ease. Recommendations have been submitted and approved that the homestead regulations be amended so that a permit from a fire ranger become necessary before a settler, if he entered upon his homestead after the passage of the Order-in-Council establishing such regulations, can set out a fire to clear his homestead. Dominion legislation can go no further in this matter. The provinces of Manitoba, Saskatchewan and Alberta have considered the question of changing their fire Acts so as to provide a system of permits; and legislation was passed in Manitoba and Saskatchewan in the session of 1917 which should prove effective in the matter if there is proper co-operation between the Dominion and the provincial authorities in administering it.

Railways are seen to have been responsible for 20 per cent. of the fires in 1916 and 13 per cent. in 1915 and 1914. The control of the privately

owned railways, which form the greater part of the mileage of railroad in the West, is carried on by the railway companies under the orders of the Dominion Board of Railways Commissioners, and is subject to inspections by the officers of the Forestry Branch. On the publicly owned railways, that is on a portion of the 'Transcontinental Railways' and the Hudson Bay Railway, the responsibility for all patrolling and inspecting belongs to the Forestry Branch, and one permanent and eight temporary inspectors are employed on the work. The railways have generally co-operated well in the work of protection and results have been good. The Edmonton, Dunvegan and British Columbia Railway Company, which is responsible for 66 of the total 174 fires charged to railways, has alone been remiss. Engines were carefully inspected from time to time; and of 442 inspected 36 were found to be defective, including 17 on the Canadian Pacific Railway and 10 on the Edmonton, Dunvegan and British Columbia Railway.

On the government's railway the co-operation of the Hudson Bay Railway made conditions considerably better than in the previous year. The engineers in charge and the contractors worked with the inspectors of the Forestry Branch to improve the protection from fire, and as a result only 1,640 acres were burnt over along this line as against one million acres in the previous year.

Some difficulty is experienced in protecting railways chartered by the provinces which do not come under the jurisdiction of the Dominion Board of Railway Commissioners or any other form of Dominion jurisdiction.

§ 4. THE FOREST RESERVES.

There were only 43 fires in the forest reserves in 1916 as compared with 205 in 1915 and 408 in 1914, both of the latter years being very dry. Seventeen of the fires, or 40 per cent., burnt over ten acres or more. They covered a total area of 18,628 acres, of which the greater part was grass land but which included 122 acres of saleable timber, 970 acres of cordwood and 340 acres of young growth.

The total sum of \$91,520 was spent in the forest reserves in 1916 on improvements, of which the following directly increased the protection against fires:

Improvements			Cost
Look-out towers	Number	8	\$ 1,039 .
Telephone lines	Miles	22	12,475
Fireguards ploughed	"	156	1,241
Fireguards cleared	"	50	2,332
			<hr/> 17,087

The telephone lines do not of course serve exclusively to give protection against fires, but this is very dependent on the system of communica-

tions which is being carefully planned in the forest reserves. The methods of constructing forest telephone lines, their use, and other methods of transmitting information are being studied with a view to preparing a manual for the instruction of forest officers.

§ 5. THE FIRE-RANGERS' DISTRICTS.

For the purposes of fire-ranging the province of Manitoba outside the forest reserves is divided into the districts of Manitoba South, Manitoba North, Pas and Port Nelson.

Manitoba South was divided into thirteen patrols served by thirteen rangers who had four assistants. Patrols were made by canoe and on foot and also, on Lakes Winnipeg and Winnipegosis, by sailing boat. A small skiff having a detachable gasoline engine proved very useful. The heavy snowfall in the winter of 1915-1916 and the frequent rains in the spring and early summer of 1916 made the country very wet and lessened the risks of fire. Five large fires were reported: they covered an area of 1,040 acres and involved an expenditure of \$7.20 exclusively of the cost of the regular rangers' service; they destroyed no saleable timber and very little young growth. Thirty-four small fires, which covered an area of not more than ten acres each, were extinguished by the rangers and caused no extra expense.

In Manitoba North the fire-ranging is in charge of a superintendent who employs two motor-canoes and makes frequent inspections of outlying districts. If he cannot complete the reports and make maps of each of the fires during the summer he travels in the winter by dog train to secure the needed information.

The actual patrolling is done by Indians who have an intimate knowledge of the districts assigned them: they travel by canoe and work in pairs. Only six large and six small fires occurred in 1916, and although they burnt over a considerable area they did little damage.

The Pas district was guarded by a chief ranger and nine other rangers, eight of whom had assistants. All patrols were by canoe. Only three fires, which burnt over 680 acres and involved an expenditure of \$79, exclusively of the cost of the rangers' service, were reported. The damage done was estimated at \$2,000.

The Port Nelson district was organized in the early part of 1916. Of the two rangers, of whom each had an assistant, one patrolled the Hayes river and the other the Nelson river, both in canoes. Patrolling was continued until late in October and no fires were reported.

Saskatchewan.— For the purposes of fire-ranging Saskatchewan is divided into the Battleford and Prince Albert districts. These comprise all the timbered country south of the Churchill river and north of the Saskatchewan river, outside the forest reserves, and have a total area of 47,736 square miles. They are divided into the smaller rangers' districts which vary in size from 391,680 to 2,534,400 acres. The Battleford district is divided into eleven rangers' districts, in each of which there are a chief fire

ranger and one sub-chief fire ranger; and the larger Prince Albert district into seventeen rangers' districts, in each of which there are one chief fire ranger and two sub-chief fire rangers. The smaller districts are situated along the northern line of settlement where the danger of fire is at a maximum. In the larger districts only the used waterways are patrolled. The districts are much too large to give the best results, but the men are doing good work and there has been little loss from fire in the last two years.

Patrolling is the primary work of the men, but when there is little danger of fire they are employed on such tasks as keeping old trails and portages open, cutting new trails and portages, and making look-out towers, small cabins and storehouses. Within the year a fairly good supply of tools for fighting fires, portable telephones, equipment for constructing telephones, waggons, canoes and other necessary equipment have been deposited in the rangers' stations, the cabins and the small depositories for tools. Each ranger must have the equipment in his district always ready for immediate use. A supply of provisions is also deposited in the more remote districts.

Eight large and twenty four small fires occurred in the fire-ranging districts in Saskatchewan in 1916. They burnt over 24,605 acre or less than 3 per cent. of the area patrolled, cost \$135 to extinguish, in addition to the regular cost of the rangers' service, and did damage estimated at \$5,820.

Alberta. — This province is divided, outside the forest reserves, into the four fire ranging districts of Edmonton, Mc'Murray, Slave and Mackenzie River. In the Edmonton district a staff of about forty men was employed in 1916, in the Mc'Murray district about fifteen men; the Slave district was patrolled by two steamboats each manned by a crew of three or four men, and also in one or two cases by canoes; in the Mackenzie district work was less extensive and largely educational, and was carried on by a staff of four men directed by a government agent at Fort Simpson. Owing to the weather the Mc'Murray, Slave and Mackenzie River Districts suffered comparatively little loss from fire. In the Edmonton district however, and especially in the Peace River country, weather conditions and the fact that the country is being developed were responsible for a larger number of fires, in all 247 of which 25 covered more than ten acres each. About 40,000 acres, chiefly grass land and land previously burnt, were burnt over; but only about 5 per cent. of this area was covered with useful growth or saleable timber.

A special inspection was made of the Mc'Murray and Slave districts, and it is expected that fire ranging on them will in consequence be reorganized.

Notable progress was made in the matter of the protection against fires along the railway lines, which was supervised by a district fire inspector and his two assistants. Both the Canadian Northern and the Grand Trunk Pacific Railway took active steps in connection with the clearing of rights-of-way. The organization of patrols by the latter railway was much improved.

The protective work of the Edmonton, Dunvegan and British Columbia Railway was however less efficient. Towards the end of the year 1916-1917 some steps were taken to clear the right-of-way on it which was in a dangerous condition.

The Railway Belt of British Columbia. — In this country the mountains, the more widely distributed settlement and the value of the timber make the fire rangers' districts smaller than elsewhere. The generally favourable weather and close attention to work on the part of the rangers made losses from fires in 1916 inconsiderable. In the coast district a lessening of the activities of lumber companies allowed the number of rangers to be reduced from twenty-three to twenty-one. The Lookout Mountain lookout station was completed. In the Salmon Arm district the burning permits entailed work which caused the number of rangers to be increased from sixteen to eighteen. In the Revelstoke district an extra ranger was employed to provide adequate protection for the great timber areas in the Spillamacheen River watershed which had hitherto been much neglected.

Part, III: Credit

GERMANY.

THE "OSTPREUSSISCHE LANDGESELLSCHAFT" OF KÖNIGSBERG IN 1916-1917.

SOURCE:

ARCHIV FÜR INNERE KOLONISATION Year 1916-1917, Vol IX Part 12 Berlin, September, 1917

§ I. FACTS OF GENERAL IMPORT.

The *Landgesellschaft* of East Prussia, which has its headquarters at Königsberg, described in a report covering the period from 1 April 1916 to 31 March 1917 its activity within that year in the matter of land settlement.

During that year the following properties were offered to the society:

Administrative district of Allenstein	16	properties of an area of 1,828 39 hectares
Gumbinnen	18	" 1,545.29 "
" " Königsberg	18	" " 3,516.95 "
That is, in all	52	6,890.63 "

In the preceding year 84 properties having an aggregate area of 12,443.53 hectares were offered.

In 1916-1917 the society bought, in addition to the properties indicated in the report for the previous year:

1) Figaiken in the district of Mohrunen, which has an area of 295.68 hectares, for 477,500 marks or 1,614 marks the hectare.

2) Neidenburg, No. 484, a communal property having an area of 38.49 hectares, for 151,103 marks or 3,925 marks the hectare. This property has been devastated by the war. Under a ministerial order it was transferred to the society which undertakes the settlement of small holders at Neidenburg in order that it might be used for settlement of this description.

At the close of the year 1916-1917 the area available for settlement was 9,396.33 hectares.

On 1 April 1917 there had already been assigned to settlement 39,261.27 hectares.

Parts of this area had been ceded as follows :

a) as independent Rentengüter	23,649.33	hectares
b) as land rendering a due	227.09	"
c) woods, ponds, Restgüter and land sold by amicable settlement	4,935.34	"
d) for roads and ditches and as land to be used for the needs of communes . . .	1,053.58	"

Giving a total of . . 29,865.34

Up to 1 April 1917 the settlers installed numbered 1777. Out of this number 737 or 42 per cent. belonged to East Prussia and 627 or 35 per cent. to other parts of Germany, while 413 or 23 per cent. were Germans returned from Russia.

These settlers brought with them 4,135 children under sixteen years of age and 995 older children.

The holdings were settled as follows :

33 per cent., settled by labourers and artisans had an area of 2 ½ hectares or less. . .	that is	583	settlements
60 per cent., settled by small and middling farmers had an area between 2 ½ and 25 hectares	" "	1060	"
7 per cent., were settled by large farmers or formed <i>Restgüter</i>	" "	134	"

As stated, therefore, the total was. . . 1777

During the time covered by the report it was possible to instal only 25 settlers on an area of 114.82 hectares. Nine of these settlers came from East Prussia, nine belonged to other parts of Germany and seven were Germans returned from Russia.

As regards the settlement of men wounded in the war :

Two such were installed on a property of 3 hectares at Theerwisch in the district of Ortelsburg and three on a property of 4 ½ hectares belonging to the town of Ortelsburg.

During this year the department of the society which is concerned with horticulture in gardens and orchards had a special development. The society owns some hundred model gardens, supervised by an inspector, in which there are altogether 2978 large fruit-trees, 662 fruit-trees of medium size and thousands of berry-bushes, as well as new plantations of fruit-

bearing plants. Fifteen colonies have already supplied young fruit-trees. The winter frosts have however prevented this work from producing its fruitful results. During the summer the society was endeavouring to extend the cultivation of vegetables. Two educational gardens were formed, one at Tiefenstein near Zinten and one at Neu-Legden in the district of Königsberg. In order to educate farmers who own *Reutengüter* twenty-five lectures on the growing of fruit-trees and vegetables were delivered. Professional gardeners, who could give practical instruction as to growing trees, were present. In the school at Allenstein-Kortau for teaching agriculture to men injured in the war lectures on horticulture, illustrated by lantern-slides, were given, and the principles taught were applied on land of the school. This work was done by the society's horticultural department, which also co-operated with a certain number of societies for the settlement of small holdings in drawing up schemes which could be applied to cultivable lands.

The society founded during the year a central office to undertake property business, but for lack of a suitable staff this office has as yet not developed. In consequence it has evidently been impossible to sell some good and fully farmed properties; the less good properties without stock or buildings have been unsaleable. In fact, in spite of the offer of 44 lots and the demand for them, it was possible in 1916-1917 to treat for only one of them. For the following year the services of a specialist were engaged, but it does not seem that the situation as regards this matter was essentially changed.

§ 2. — LAND SETTLEMENT.

In the previous year the business of land settlement was almost completely arrested, but it cannot be said that the demand for land to be settled was defective. On the contrary applications for such land were extraordinarily numerous. In the first place they came from Germans who had returned from Russia in consequence of the war, and wished to buy land with their remaining wealth. They first established themselves as labourers on privately owned property in the country, but such situation satisfies them only temporarily for they have not lost the desire to farm on their own account. There were also soldiers wounded or mutilated in the war who wished to become settlers with the help of the capital they hoped to receive. A third category is that of soldiers still in the army who have expressed a wish to buy land when they are discharged. The society could supply all this demand only partially. There cannot now be question for the settlers of the necessary building works for which labour and material are lacking. For the moment only one thing can be contemplated, the simple purchase of the land on which the necessary buildings will be erected later and which will be cultivated. The lots to be settled which were furnished with buildings and available before the beginning of the war were not numerous and were sold in the year preceding that with which the report deals. As for new buildings on lands devastated by the war

and rebought by the society in 1915-16, those projected by the society could not be erected because the condition of the building market continued to be unfavourable. It is indeed easy to understand that it is impossible to undertake new building at a cost so high that settlers could not reach a position which would enable them to pay interest on capital thus invested.

In the previous period settlers could provide for the buildings needed on a lot of from 10 to 13 hectares with a sum between 7,000 and 8,000 marks. In the year with which the report deals the society would have had to spend more than 40,000 marks for the same work on a lot of equal area. At the present time the supposition that settlers can obtain a yield which would allow them to pay interest on even half this sum is to be excluded. Difficulties as grave are encountered when the matter of providing stock is considered. Even if its provision be admitted to be materially possible — an improbable hypothesis — the price to be paid would be so high that no settler would risk it. While present conditions continue all settlement will be almost impossible.

All we have said refers to such new settlements as may be planned. As regards the settlers who are already in possession of their lots, their situation is on the whole not bad. During the first year of the war the payment of accounts and interest was subject to certain delays, but this state of affairs has since largely ceased to exist. It is natural that work has suffered owing to the increasing number of men who have joined the army. The families of settlers have had comparatively large losses. It would also be a mistake to think that the settlers are doing particularly good business owing to the high price of products. The society knows by experience that this is not true. That from which the farms suffer most is the circumstance that the whole burden falls on settlers' wives and their daughters who are old enough to be of use, since the settlers themselves and their sons are absent. The women may and do undertake the heaviest work, but it is difficult to replace a man's strength and insight.

Hitherto pig breeding had been the chief source of the profit made by the small farmers. But circumstances have much changed and this industry is greatly hindered by the lack of food for the pigs. Once the smallest farmer kept a fairly large number of pigs, but today there are hardly as many in a whole colony as there used to be on his holding.

It is already difficult for occupiers of very extensive lots to procure the artificial manures necessary to their farms, and it is only very rarely that a settler can today supply his needs in this respect. All the trouble which the society has taken to help its settlers to buy these manures has been vain. It has had much difficulty in procuring them for the properties it manages itself and farms directly as large farms. The settlers' farms suffer the more from the lack of chemical manures because, in consequence of the war, their live stock has diminished, and there is therefore a lack of animal manure.

In 1916-1917 the grain harvests of settlers, including the rye harvest, were generally good. Potatoes left much to be desired, but there was a good yield of beetroot, red cabbage and hay.

§ 3. THE SETTLEMENT OF SMALL HOLDERS.

During the year covered by the society's report the settlement of small holders had a surprising development. The reasons of this are to be sought above all in the present condition of what may be called the dwellings market.* The information which the society has acquired during its activity in favour of the settlement of small holders makes it seem likely that after the war there will be a serious lack of small dwellings in the provinces, in towns and in the country. This phenomenon had begun to evince itself with some distinctness before the war. Beyond rebuilding in the devastated parts of East Prussia there has been hardly any building during the war, and this rebuilding has been carried out only partially and will be completed only some considerable time after the conclusion of peace. The destroyed cottages had been insufficient, and yet the new rules as to building will not allow them all to be rebuilt since larger and better houses will also be wanted after the war.

Even if the total number of dwellings which must be erected immediately after the war is not greatly increased, it is still very large as compared with the supply of building materials and labour, and the urgent nature of this building work will heighten the difficulties which will have to be surmounted. District and urban administrations are aware of these prospective difficulties. The society with which we are concerned has endeavoured to organize the settlement of small holdings. At the end of the year under review it had founded eighteen societies with this object which had thirteen branches. Their total capital is 1,342,700 marks. There were already 28 societies, having a capital and possessions amounting to 2,862,000 marks, in the country.

The foundation is contemplated of a large number of these associations, and the organization will shortly spread over the whole province, reaching every place where the need for it is felt. In order to render these societies for the settlement of small holdings as capable of action as possible, they are given the form of limited liability societies, in conformity with the ruling as to the application of the law of 8 May 1916. In order to safeguard the interests of the State the conclusion and the regulation of business are subject to the consent of the chief president. The *Landgesellschaft* of Königsberg co-operates where the technique of operations is concerned, and the General Royal Commission will take part in the credit business through the medium of the *Rentenbanken*. These restrictions are considered to be necessary and to ensure sufficiently the working of all these societies according to a single programme which keeps them on the right path.

The organization of the settlement of small holdings is prepared therefore to remain active in the province until the end of the war; but there is none the less reason to fear that building enterprise will not be possible there for a long time. Hitherto the societies have not been able to begin building even the dwellings necessary to settlers, and have had to limit

their activity with regard to the purchase of land for settlement and the realization of their schemes for colonization. The question which arises is whether the high cost of building will allow it to be undertaken in satisfactory conditions and in the near future even after the war. What is important to notice is that the society is preoccupied at the same time by the problem of the settlement of small holdings and that of housing accommodation.

§ 4. CONSOLIDATION OF PROPERTY.

Up to the outbreak of war the society had received 548 offers of land for colonization, to which must be added two received during the year covered by the report and referring to the *Restgüter* of Siewkin and Gurnen. Altogether therefore 550 offers were received. Of them 135 were accepted by a regular agreement, and of these three were withdrawn by consent while the negotiations as to 27 were successfully concluded. The procedure with regard to 105 has therefore to be completed. Of the 415 not accepted 68 have been almost refused and 34 withdrawn, while proceedings are in course with regard to 313.

Of the 27 completed transactions 12 belong to the year covered by the report. Among such of the properties concerned as have had their positions consolidated four, having an area of 2,751 hectares, belong to the class of large properties, and eight, having an area of 1,126 hectares, to that of small properties. The total area which has been consolidated measures 3,877 hectares. Before their consolidation the average rate of mortgages, including personal debts, on these twelve properties was 4.438 per cent. In consequence of the consolidation a saving of 14,064.70 marks or 11.129 per cent. of the annual interest was effected. Advantage has been taken of this in order to raise the rate of amortization, but this does not prevent the fact that the burdens which have to be paid annually are less by 3,347.85 marks than under the mortgage system which was previously applied to these properties.

The funds which have been used to regulate the position of these twelve properties were supplied by first mortgages, largely by means of loans from the *Landschaft*, and in some cases by loans from the *Zentral-Bodenkredit-Bank*, the *Provinzial Hilfskasse* and the *Kreis-Kommunalkasse*. Thus 1,613,813 marks were obtained. Second mortgages brought a capital of 1,222,520 marks in State bonds. The total sum was therefore 2,836,333 marks or 731 marks a hectare.

The books show that State advances for the extinction of mortgages to individuals, personal indebtedness and other liabilities amounted to 900,845.60 marks.

In the course of this business the society met with difficulties which seemed insurmountable. Many problems with regard to the valuation of the sums to be amortized had to be solved. Owing to the fluctuation in values it was necessary to arrange that landowners should not suffer excessive

losses in consequence of a new valuation either of their land or of the deeds of pledge and mortgage. The business was concluded by deferring the needed new valuations until two years after the war.

Most of these properties have suffered further losses owing to the war, and therefore valuations must take place before the proceedings in course can be continued. We must add that, where some of the properties to be consolidated are concerned, deeds, mortgage titles and other documents necessary to the procedure have been destroyed as an effect of the war, and that an insufficient staff will prevent them from being renewed for a considerable time.

These are circumstances which have often impeded the conclusion of business of this kind

§ 5. FINANCIAL STATEMENT.

The capital of the society amounts to 7,651,000 marks and is completely paid up.

In 1916-1917 the turnover was 153,364,395.05 marks and the cash turnover 20,632,592.68 marks. At the end of the year advances for building amounted to 956,552.31 marks. This figure shows no notable diminution from that of the previous year. An essential diminution is perceived only if the question of building is considered by itself, especially as some business of the *Rentengüter* has been ceded to the *Rentenbank*.

The *Landgesellschaft* has had to defer its regulation of conditions dependent on public law, for hitherto the activity of lawyers has been absorbed by much urgent business.

At the end of 1916-1917 the society possessed, beyond 3, 3 ½ and 4 per cent. pledge titles bought with its amortizations :

1,103,625 marks	in 3 ½ and 4 per cent. titles to mortgage revenue ;
57,000	" 3 ½ per cent. provincial bonds of East Prussia ;
500,000	" 5 per cent. Prussian Treasury bonds ;
and 860,000	" the debt of the Empire and the Imperial Treasury.

The society subscribed to six war loans, and in order that it may have available funds its agents have been careful to reinvest, as occasion has arisen, part of these loans.

It invested, in 1916-1917, 1,174,275 marks of titles to mortgage revenue. The sale of these continued after 1 April 1917, and only titles for 468,900 marks now remain to the society. The 4 per cent. titles were at 89.

The balance from sales amounted at the end of the year to 12,539,571.76 marks, of which sum 5,486,157 marks is the balance from mortgage annuities of the *Rentengüter* ceded to the *Rentenbank*. This balance is at 4 per cent. although the society may not contract loans at less than 5 per cent. It therefore charged its agents to strengthen the guarantee funds in order that it may eventually recover the difference.

The debtors' current account reached at the end of the year a sum of 1,460,597.24 marks as against one of 3,030,310.39 marks in the previous year. At the end of the year under review the society reckoned its holding in the bank for this account as 531,719.14 marks.

The mortgage account shows a diminution of 208,000 marks resultant on the society's cessions in order to increase its available funds, and on its purchase of the *Restgüter* it took over. The society anticipated that it would realize in the same way in 1917-1918 a further diminution of 132,275 marks. At the end of the year under review this account stood at 1,293,815.15 marks.

As the owners of the properties which are mortgaged are mostly in the army, the *Ostpreussische Landschaft* has undertaken no new valuations, and the society with which we are concerned has deferred until three months after the end of the war the repayment of annuities which have fallen due.

Although the harvests have not been entirely good the interest on annuities overdue or falling due and on capital advanced for the purchase or sale of property has brought in a satisfactory income. This overdue interest on capital advanced was 87,926.14 marks as against 131,582.67 marks in the previous year, and on mortgages 62,575 marks as against 87,379.50 marks. Up to 1 June 1917 the sum received was 56,939.43 marks; and the sum overdue therefore stands only at 93,561.86 marks as against 218,962.15 marks in the previous year.

To the sum of 5,738,944.48 marks, at which the society's property account stands, there should be added 1,655,182.74 marks which was the sum granted without interest by the State's general fund for the purchase of properties damaged by the war.

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES

ARGENTINE REPUBLIC.

LAND CREDIT IN ARGENTINA IN 1917 — *Le Revue Économique et Financière* Paris,
15 June 1918

The year 1917 has not sensibly improved the Argentine economic situation. The defective harvest of 1916-1917 was a handicap in the first months of the year, and subsequent difficulties of various kinds impeded the progress of business in the country; the rarefaction and costliness of means of maritime transport much hindered the realization of the value of products; strikes among the employees of railways and factories were obstacles to the exercise of a spirit of enterprise; and the uncertainty of the political situation contributed to a similar state of affairs. But although the improvement of business in Argentina was not what it might have been it yet made itself felt in the latter part of the year, thanks to the prospect of a 1917-1918 grain harvest better as regards quantity and value than that of preceding years, and thanks to the flourishing condition of stockfarming of all kinds. The products of stockfarming — meat, wool and leather — reached very high prices when they were exported, and thus ensured a balance of trade in favour of the country and gave it large available financial resources. Consequently the percentage of gold which guaranteed the paper circulation reached 75, and this had a very favourable influence on the Argentine exchange.

Since the year 1917 has closed this improvement in the situation of the country has been accentuated. There has been a fine grain harvest almost throughout the cultivated territory. Agreements between the Argentine and various other governments for the purchase by the latter of this harvest, and for exporting and handling it, have secured that its value will be realized in good conditions and have eliminated all risks of a speculation injurious to the products market and the rate of exchange.

It can be asserted already that the uneasiness which prevented the resumption of business in Argentina is being dissipated gradually; and it may be anticipated that it will completely disappear and will give place to a new era of activity so soon as international relations have returned to their normal course. The important financial resources which are constituted by the unemployed capital accumulated in banks, and which amounted on the 31st of last December to nearly five thousand million francs, will revert to land business and agriculture, the only investments which Argentines appreciate.

The following are the two last balance-sheets of the Argentine Land Credit :

Assets.

	31 December 1916	31 December 1917
Shares	25,000,000 fr	25,000,000 francs
Premiums to be amortized on bonds	29,223,239	28,957,542
Mortgage loans	195,573,088	177,624,135
Mortgagers' overdue interest. . .	11,031,966	13,084,281
Property in land.	2,969,303	7,515,780
Securities	22,007,000	36,685,750
Various credit	8,282,048	13,969,528
Treasury dues to be recovered . .	80,667	103,620
Ordinary accounts	6,370,032	6,987,525
Dividend account	1,000,000	1,000,000
	<u>301,537,343</u>	<u>309,928,161</u>

Liabilities.

	31 December 1916	31 December 1917
Capital	50,000,000	50,000,000
Bonds	190,280,000	188,550,000
Reserve as by by-laws	1,975,073	2,199,598
Extraordinary reserve	21,650,000	22,650,000
Reserve for reconstitutions of premiums to be amortized . .	3,374,566	3,944,860
Special fund	7,699,583	10,383,057
Various creditors.	8,523,666	14,472,634
Ordinary accounts	6,370,032	6,987,520
Interest on loans received in advance	85,834	57,803
Interest on mortgages carried forward	3,826,183	3,319,317
Profit and loss	7,445,088	6,852,497
	<u>301,537,343</u>	<u>309,928,161</u>

The demand for capital secured by mortgages was still very limited ; but advance repayments were favoured by the fall of the franc in comparison with the piastre and were numerous and important.

On 31 December 1916 the company's remaining loans amounted to 195,573,088 francs. Since repayments outweighed new loans, the amount of loans fell in 1917 to 177,624 135 francs, of which sum 32.15 per cent. was urban loans and 67.85 per cent. rural loans.

As regards interest in arrears : this amounted to 11 526,045 francs on 31 December 1916, and the sum overdue in 1917 was 15,355,465 francs ; so that the total sum to be recovered was 27,781,510 francs. Only 14,327,584 francs were recovered. Therefore at the end of the year arrears amounted to 12,453,926 francs, of which sum 12,081,281 francs were the company's own property. All the part of these arrears which dates from a time earlier than 1917 — namely 2,253,729 francs — has been redeemed by a deduction of an equal sum placed in the special fund.

EGYPT.

THE ACTIVITY OF THE AGRICULTURAL BANK OF EGYPT IN 1917-1918 — *Rapport du Conseil d'Administration de "The Agricultural Bank of Egypt" pour l'exercice 1917-1918*

The war has caused a very lively agricultural prosperity in Egypt. It seems likely that the grain harvest of 1918 will command a good price ; and agreements between the British and the Egyptian governments as to the cotton harvest have fixed the selling price of cotton considerably higher than was customary before the war.

The business of the Agricultural Bank of Egypt has been influenced by this state of affairs. Notably the reduction in the arrears of this institution between 31 January 1915 and 31 January 1918 from £ E. 1,394,546 to £ E. 403,786 has been principally due to the high prices of products of the soil.

Repayments made before terms are completed is another index to the flourishing situation of Egyptian agriculture. From £ E. 45,140 in 1914-1915 these loans fell to £ E. 17,758 in 1915-1916 and then rose to £ E. 32,621 in 1916-1917 and £ E. 62,806 in 1917-1918.

The table showing loans confirms this statement.

The loans granted were distributed as follows :

Loans A (on note of hand) •

£ E.	5,500 to	£ E.	20	153 loans	for £ E.	2,706
'	20,500 "	'	100	33 "	' "	1,595
"	100 "	"	100	4 "	"	635
Total				190	'	4,936

or an average of £ E. 25.9 a loan.

Loans B (Mortgage)

£ E	10 to £ E	50	54 loans	for £ E	1,790
	51	100	67		5,835
	101	15	27		3,523
	151	300	85		19,558
	301	500	60		27,040
	501	100	42		33,850
Total . .			341		91,002

or an average of £ E. 268.6.

Thus in the whole year 531 loans aggregating £ E. 96,538 were made against 592 aggregating £ E. 127,093 in the previous year.

The issue of small loans having a government guarantee is still diminishing. The sum of the advances is very inferior to the capital repaid during the year, perhaps because of the general wellbeing of agriculturists and the Five Feddans Act.

The following table resumes the state of loans on 31 January 1918.

Kind of Loan	Number	Amount £ E	Average £ E.
Loans A (on note of hand) .	32	907	28.3
Loans B (mortgage) . . .	87,903	4,178,567	47.5
Loans of more than £ E. 1000	63	170,209	2,701.0
Collective loans and loans to agricultural syndicates .	2	407	203.0
Total	88,000	4,350,090	

Last year the corresponding figures were 97,516 loans for an aggregate of £ E. 4,719,276.

ITALY. *

THE "CREDITO AGRARIO PER IL LAZIO" IN 1917 — Report on the year 1917, Rome, 1918.

This institution of agricultural credit, which was founded in Rome by the law of 21 December 1902 (No. 542) with a capital of one million liras, does business *a*) by means of intermediary bodies, such as agricultural consortia, rural funds, agricultural colleges, societies conducting distilleries and cellars; *b*) directly with agriculturists. In the former case it rediscounts the bills issued by agriculturists on the bodies indicated, preferring such of them as are co-operative in form; accepts for discount bills directly issued by these intermediary bodies themselves, either for the purpose of

procuring means to acquire on commission articles useful to agriculture, or for that of making advances in the case of collective sales of agricultural products. In the latter case it accepts for discount bills issued by agriculturists residing in a district where the intermediary bodies either do not exist or cannot undertake such business, and also accepts for discount bills issued by agriculturists and secured by a privilege over seeds or by the pledging of agricultural products.

• For each loan and in a single undertaking the maximum sum which can be lent is 5000 liras. When a transaction is secured by a privilege such maximum limit is however 10,000 liras.

The duration of a loan cannot be more than a year, For loans needed for the acquisition of live stock and machines its duration may however be three years.

As regards the activity of this institution in 1917 we should notice that its total business in this year covered 10,860,264.16 liras. Most of this business, that part which covered 9,402,151.66 liras, was done with intermediary bodies, being distributed as follows :

agricultural consortia	4,480,701.90 liras
various societies exercising agricultural credit . .	3,658,717.04 "
popular co-operative banks	674,347.42 "
agricultural colleges	254,765.80 "
agricultural and rural loan funds	220,619.50 "
social distilleries and cellars	113,000.60
	<hr/>
	9,402,151.66

These loans had the following objects :

growing cereals	2,878,125.64 liras
" vines	1,943,204.30 "
sulphate of copper, sulphur, various fertilizers . .	1,691,030.44 "
various crops	1,423,404.80 "
stock farming	645,810.22 "
growing olives	475,329.60 "
agricultural implements and machines	345,246.66
	<hr/>
	9,402,151.66 "

They were divided up as follows :

625 bills for from 1 to 50 liras	28,506.14 liras
4,204 " " " 51 " 100 "	419,612.15 "
3,610 " " " 101 " 500 "	1,808,325.68 "
1,454 " " " 501 " 1,000 "	1,444,220.55 "
430 " " " 1,001 " 5,000 "	2,145,888.60 "
403 " " more than 5,000 "	3,555,598.44 "
10,726	<hr/>
	9,402,151.66

Direct transaction with agriculturists covered 1,458,112.50 liras, distributed as follows according to their nature: direct simple discount 608,858 liras; rediscount of bills 88,101.50 liras; advances on pledged agricultural products 390,500 liras; advances secured by privilege over seeds 370,653 liras. The objects of these loans were as follows: growing cereals 774,404.80 liras; growing vines 292,100.25 liras; stock farming 149,821.37 liras; various crops 138,125 liras; growing olives 72,200.60 liras; acquisition of sulphate of copper, sulphur and various fertilizers 31,460.48 liras.

The rate of interest on transactions with intermediary bodies oscillated between $5\frac{1}{2}$ and $6\frac{1}{2}$ per cent., that on those with agriculturists between $6\frac{1}{2}$ and $7\frac{1}{2}$ per cent.

To conclude: in 1917 this institution noticeably increased, as compared with 1916 (1), the credit afforded to the agriculturists of Latium for tilling the soil, providing seeds and fertilizers and meeting all the other costs of farming, and thus it responded to the new needs of national economy and to the recommendations of the Ministry of Agriculture as to an intensified cultivation of foodstuffs.

RUSSIA.

SCHEME FOR FORMING A BANK OF THE TIMBER INDUSTRY — *Bulletin de la Chambre de Commerce russe de Paris*, No. 4, 1918.

At one of the last meetings of the Russian Chamber of Exportation at Petrograd the question of forming a special State Bank for the wood industry was examined. The banks of the present credit institutions are not well organized for credit operations in this industry, which has to have recourse, on onerous terms, to private credit.

This position has had a grave influence on the business of selling wood abroad. A Russian exporter is entirely dependent on his representative who is also his commission-man and his banker. In these conditions the exporter is always in the debt of an agent, whom he is therefore obliged to consider as his sole commission-man, so that he is unable to sell his timber without him.

These circumstances, very profitable to a foreign agent, kept the exporter, and especially the small Russian timber-man who worked his wood in order to export it, in a much embarrassed position, and hindered the development of this industry in the north of Russia.

The development of the timber industry in this region requires large capital which it is intended to procure by issuing shares to the amount of 500 million roubles.

The State is to be the largest buyer of these shares. Branches of the

(1) See our issue for August 1917, page 50. The report we have examined states that the *Istituto di Credito Agrario per il Lazio* again petitioned the government for an enlargement of its field of operations so that this should include part of Umbria, that is the Sabine district which forms a wedge in the Roman province.

forest bank are to be founded in the centres of all districts in which the timber industry is developed and in districts which might increase their export of timber. Moreover this bank is to supply the capital necessary to the foundation of timber enterprises and yards for the manufactory of machinery with which to work the wood. It is, finally, to have branches abroad.

UNION OF SOUTH AFRICA,

THE ACTIVITY OF THE LAND AND AGRICULTURAL BANK OF SOUTH AFRICA. — From this bank's *Report for the Year ended 31st December 1917* Pretoria, 1918

In 1917 the Land and Agricultural Bank of South Africa received 2,299 applications for advances amounting to £1,147,758. This shows an increase over previous years when the numbers of applications were as follows :

1913	3,889
1914	1,268
1915	401
1916	2,022
1917	2,299

The fall in applications after 1913 was due solely to the restriction of the bank's operations by lack of funds.

Of the 2,299 applications 78 were withdrawn before their consideration; 1,997 were granted by the bank ; and 1,607 for a total sum of £854,140 were granted on terms accepted by the applicants.

The increased cost of fencing material effected a marked decrease in the amount of fencing put up in 1917. In 1913 there were 906 applications for advances for fencing amounting to £132,988 ; in 1917 there were only 67 such applications for a total sum of £6,583.

The construction of dipping tanks is proceeding steadily. During 1917, 172 applications for advances amounting to £16,180 for this purpose were received ; and 132 of them for £12,102 were approved. The average advance for a single tank was £91.

The bank advanced £13,150 to 41 applicants on second mortgages. Under Act No. 28 of 1916 it advanced £50,538 to 293 persons for the purchase of live stock.

On 31 December 1917 the co-operative societies owed £443,722 to the bank. Those in Transvaal had received £410,600 and still owed £366,985 ; those in the Orange Free State had received £69,500 and still owed £49,170 ; those in Natal had received £10,100 and still owed £6,022. Twelve applications for advances amounting to £111,100 were received during the year, of which sum £104,600 were granted.

The net profit of £42,378 was realized and was placed to the credit of the reserve fund, which now stands at £250,773.

Part IV: Agricultural Economy in General

UNITED STATES.

THE PROBLEM OF AGRICULTURAL LABOUR.

OFFICIAL SOURCES :

- OSBORN Charles F. : Methods of Meeting the Demand for Labor in the U. S. *Bureau of Labor Statistics*, Vol. V, No. 3, September 1917.
- LEIBERSON W. M. , professor of the University of Toledo (Ohio) : Mobilizing and Distributing Farm Labor in Ohio. *Monthly Review of the U. S. Bureau of Labor Statistics*, Vol. VI, No. 4, April 1918.
- STODDARD (C. F.) : How the United States Employment Service is Mobilizing Workers. *Ibid.* Vol. VI, No. 5, May 1918.
- Monthly Review of the U. S. Bureau of Labor Statistics, Vol. IV, No. 6, June 1917.
- Official Bulletin of the U. S. Department of Agriculture, 1917.

OTHER SOURCES :

- WILCOX (E. V.), of the Office of Agricultural Administration : Plan of the Department of Agriculture for Handling the Farm Labor. *The American Economic Review*, Vol. VIII, No. 1, supplement, March 1918.
- SEAGER (Henry R.), of the University of Columbia : Coordination of Federal, State and Municipal Employment Bureaus. *Ibid.*
- BARNES (Charles B.), of the Labour Bureau of the State of New York : Employment and the Labor Market. *Ibid.*
- Discussion of the preceding questions at the thirtieth annual meeting of the American Economic Association at Philadelphia, in December 1917. *Ibid.*

Even before the United States entered into the European war the problem of agricultural and other labour presented itself in that country in an accentuated form. As early as 1915 attempts were made to remove the placing of workmen, a social function of the highest importance, from the sphere of empiricism and private speculation.

But whenever there has been question of solving this problem, if not with complete uniformity at least in a form which will overcome with some

consistency the more or less violent difficulties encountered in the various States, very considerable obstacles have had to be surmounted. A methodical and permanent plan of action, directed by a central organization and having branches at all points of the country, which did not trespass on the administrative and legislative independence of the different States, was needed.

In face of the confusion of the labour market, the increasing demand for labour in certain industries and consequent menace to agriculture, the instability of the labouring masses and the speculation and strikes which therefore affected them, it was clear that only a federal organization, which could gradually establish relations with the working and with the employing classes, would be able to establish a balance between demand and supply throughout the country and contrive that the available labour should be fairly distributed over all fields of productive activity in proportion to their usefulness.

Political events rapidly made the realization of this ideal necessary. It inspired the central government when it elaborated a vast programme of supervision and regulation of the field of labour, a programme which aims not only at a temporary elimination of present difficulties but also at a more logical and equitable organization of labour power to meet the needs which will arise after the war.

§ 1. THE CENTRALIZATION OF SERVICES AND THE PLACING OF WORKERS.

In order to form the needed organization the federal authorities, in obedience to a principle they habitually observe, co-ordinated all homogeneous agencies at work in the different States, gave a uniform direction to the activities of these, and established within the Department of Labour the Federal Employment Service, a centralizing and directing agency which leaves to the different States complete freedom of initiative as regards the constitution of employment services within their own territories.

The Federal Department of Agriculture formed another and autonomous organization, connected with the preceding one, to deal especially with agricultural labour.

There are therefore two central organizations, the one general and the other special which are supported by the organizations of the individual States and by national and local associations and groupings. The far from negligible efforts of private initiative ought also to be mentioned. The resultant whole is a complex mechanism needing delicate handling which has however already given brilliant proofs of its worth, thanks to the co-operative spirit and the adaptability of American officials.

The Federal Employment Service has somewhat the same role as the Secretary of Labour who is seconded by a consultative committee. This aims at standardizing labour policy, procuring and maintaining a sufficient labour supply, distributing and training capable workers, establishing

and observing a priority of needs, and improving the conditions of labour and the housing and general living conditions of workers.

The practical ideas underlying the principle of centralizing the placing of labour, not exclusively but with the support and co-operation of the organizations of different States, have been incorporated in the Robinson Keating Bill which has been brought before Congress and has been in fact adopted by the federal authority.

Its chief points are as follows :

1) As regards the placing of labour the activity of the federal government is concentrated and is subjected to a director chosen from the members of the Department of Labour who disposes of considerable power and credit enabling him to take effective action.

2) The employment services organized by the different States and the municipalities are co-ordinated with the Federal Employment Service by means of subsidies paid by the central government to all such of these exchanges as conform to its rules.

3) Labour exchanges, whose function it is to bring the labour services of neighbouring States into collaboration, and a federal labour exchange at Washington are organized by the Federal Employment Service and form an integral part thereof.

The experience of the labour exchange in New York, founded in July 1917, which has endeavoured to unify the labour services of that State with the municipal and the other non-commercial services, has proved how useful agencies of this kind could be if they were inter-federal and acted as centres for the distribution of all the labour in the country.

The first efforts to found the New York exchange date back to 1915. There are now offices at Buffalo, Rochester, Syracuse and New York City, and agencies at Auburn, Oswego, Williamsburgh and Long Island City. The administrative office at New York receives daily reports from all the offices scattered over the State.

In the twelve months of 1917 more than 90,000 persons of both sexes who were seeking employment registered at these various centres, and offers of employment for 114,000 persons were received. 111,000 persons were sent to employers by the office — this large number is due to the fact that many were registered before 1917 — and 73,070 of them obtained employment.

If they are distributed by occupations it is found that more than half these workers are employed in trade and industry, that about a third are temporary workers and hotel servants, and that about 12 per cent. have agricultural occupations.

The arguments in favour of the federal supervision of labour can be resumed, from the agricultural point of view, as follows. One reason for the deterioration from year to year of the agricultural situation is the increasing dependence of farmers on temporary and migratory labour which is engaged haphazard and entirely unorganized. Only a small number of farmers can be sure of the services of a fixed staff. Most of them have to be satisfied with persons who will remain with them only for a month

or two. In consequence the farmers are in the habit of dismissing their workers as soon as the bulk of the work is done. Private employment agencies know that in most cases neither the farmer nor the labourer intends to establish lasting relations, and they heighten the difficulty by sending all available labour onto farms without troubling as to the skill or aptitudes of labourers.

This being so, it is clear that only a network of official labour services, controlling the whole labour market of an entire district and seeking to place competent workers willing to do the necessary work, can improve the situation. Farmers, tenant and other, would under such a system understand that it is in their interest to keep their workers for a whole season at least. A standardization of wages throughout a district, an improvement of conditions of work and a systematized mobilization of the available labour supply would ensue.

Before we set forth in detail the system which has been adopted we should note that it was *a priori* the object of criticism because it is no more than a combination of the individual organizations of States; and it was held that a purely federal and completely centralized organization, with a staff dependant only on the Washington government, would allow of much more effective action and of absolute uniformity.

This is only one of the multiple aspects of the struggle of the centralist and the federalist principle which recurs in every manifestation of social, political and economic life in the United States.

A) THE FEDERAL EMPLOYMENT SERVICE AND LABOUR IN GENERAL.

The Federal Employment Service, a section of the Department of Labour, received a national organization by an ordinance of the competent secretary which was dated 8 January 1915. Previously the New York branch of the Division of Information of the Department of Labour had deployed a limited activity in the same direction.

The Federal Employment Service can exercise a directive, regulating and co-ordinating action over the activity of the State services and the existing municipal and county agencies. It constitutes in fact that central exchange for labour of all kinds which was urgently needed. Thus employment bureaux of individual States come to be an integral part of the federal organization which is supervised by the Federal Department of Labour, but, in obedience to the principle generally followed in the United States, when public administration is concerned, the federated services do not lose their individuality. In the States which are thus co-operating the directors of employment, who are supervised by the director general, are nominated by the district superintendents, generally on the recommendation of the Council of National Defence of each State, and approved by the employers' and the labour organizations. In many States the combined services — that of the State and the federal service — are directed by a federal director of employment, appointed by the Department of Labour, and assisted by an associate director of employment, who is nominated on the recommen-

dation of the Council of National Defence of the State. On the 30th of last April thirty-three federal directors had been nominated by as many States.

The central employment office of each State has branches, directed by agents. On the 30th of last April there were 300 such branches. By means of an extensive rural organization the country districts are kept in constant touch with the central office. Daily and weekly reports as to labour conditions reach the main office at Washington from every locality.

Government control is exercised not only through the federal directors but also by means of a division of the country into thirteen districts each of which is in charge of a district employment superintendent. These districts are the following : 1) Maine, New Hampshire, Vermont, Massachusetts, Rhode Island ; 2) New York, Connecticut, New Jersey ; 3) Pennsylvania and Delaware ; 4) Ohio and West Virginia ; 5) Maryland, Virginia, District of Columbia North and South Carolina ; 6) Georgia, Florida, Alabama, Mississippi and Louisiana ; 7) Indiana, Illinois Michigan, Wisconsin and Iowa ; 8) Kentucky, Tennessee Missouri and Arkansas ; 9) Minnesota, North and South Dakota and Montana ; 10) Nebraska, Kansas, Oklahoma, Colorado and Wyoming ; 11) Texas and New Mexico ; 12) Arizona, Utah, Nevada and California ; 13) Washington, Oregon and Idaho.

The object of this special territorial division is mainly to allow workmen to be transferred rapidly and in masses from one district to another in which a lack of labour has been ascertained to exist. Each central district office receives reports from all the public employment offices in its district, and therefore always has an exact knowledge of labour conditions within its own field. In the same way the activity of the directors of employment in the various States is controlled, and the financial activities pertaining to this service are superintended.

Thus the distribution of the labour supply among the employment offices of a State is ensured by the office of the State director ; its distribution among the various States in a district by the office of the district superintendent ; and its distribution among the various districts by the central office at Washington.

Forms. — When a local agent receives an application for employment or for labour he enters it on a special card. He obtains from the employer the information specified on the form we reproduce, on the back of which he notes the number of persons he sends to the employer, their nationality, the date on which he sends them and the result of the transaction.

FORM No. 1.

Employer's order

				No	
Name			Date		
Address			Telephone No		
Occupation (State exact nature of work to be done)				Number wanted	
Wages	Hours	Probable duration of work			
Nationality	Sex	Age limit.	Colour	Married or single	
Apply to					
Any strike or lock-out existing or threatened?					

The prospective employee furnishes data which is placed on the following card, on the reverse side of which there is a space on which are entered the name of the employer and the nature of the employment to which the employee is sent, the date on which he is so sent and the result of so sending him.

FORM No. 2.

Application for employment.

Name		Telephone No.		Date
Address		Willing to work out of town?		
Occupation	Wages wanted	Number of dependents		
Also willing to work as	Wages wanted	Married	Speak English	
		Single	Read English	
		Widower	Write English	
Age	Race	Birthplace	Citizen of U. S.	How long in U. S.?
Last three employers	Address	Kind of work	Renewals	
Remark:				

Each applicant for employment receives a card of introduction to his employer, who fills in its lower half and returns it to the agency which supplied the employee in question. We reproduce this card, which is in the form of a post-card and is transmitted without charge for postage:

Form No. 3. *This card to be presented to employer.*

(No postage required).

Employment Office

T) 191

This will introduce *as an applicant*
for the position of *at*
 (wages)

Transportation { *Employer* , *Deducted from wages* *Directed by*
to be paid by { *Employee* , *Refunded*

EMPLOYER, PLEASE FILL OUT SPACE BELOW AND RETURN
 CARD BY MAIL.

I have *hired* *for the*
position of *and he went to work* , 191
Name of employer
Address

To supplement the scheme we have outlined the Secretary of Labour on 18 March 1918 addressed a letter to the editors of 736 daily newspapers in towns having a population of more than 20,000, many of them without employment offices, and asked each editor to establish a co-operative farm labour agency under the Federal Employment Service, to appoint a member of his staff as labour agent, to give publicity to local demands for farm labour and to report weekly to the United States Employment Service. Eighty-four newspapers responded.

Thus the regular branches of the United States Employment Service, the State and municipal employment offices, the subagencies connected with chambers of commerce and boards of trade and the newspapers are serving the cities and larger towns; while the smaller towns, the villages and the rural districts are served by the third and fourth class postmasters, the rural carriers, the county agents, and the Farm Help Specialists of the Department of Agriculture.

It is clearly impossible to condense in figures the results which the United States Service has obtained. Every year thousands of individuals are notified that they can obtain work in many districts for the time of harvest, but as they do not come into direct contact with the representatives of the service the number of those who actually obtain employment cannot be ascertained.

The few figures which follow give only an incomplete idea of the increasing importance of the United States Employment Service:

Financial Year —	Number of Workers Required —	Number of Applicants for Work —	Number of Workers sent to Employers —	Number of Workers actually placed —
1916	107,331	184,032	84,963	75,156
1917 *	118,810	413,649	363,189	283,796

* The figures for 1917 are incomplete.

As regards the figures for the current year, it is enough to state that in January the Employment Service anticipated that a million workers would be needed for agriculture, 400,000 for ship building, a million as the crews of ships, 250,000 for transport and as many for munition works.

B) THE PUBLIC SERVICE RESERVE.

The United States Public Service Reserve has been formed under the supervision of the Department of Labour. It is stated to be "an official national organization of adult males who desire to find their place for effective service to the country in the war emergency and to make it easy for the government to locate them when it needs help from men of their capacities". Prospective employees are enrolled either as voluntary workers or as wage earners. They are certified as employable either to the government or to private businesses which need certain kinds of labour.

Those who wish to be enrolled have to fill in a form indicating their age, nationality, birthplace, the birthplace of their parents, their physical defects, the number and the relationship to them of their dependents, the schools and colleges at which they have been educated, the foreign languages they know, their present occupation and the nature of the work entrusted to them, and the name and address of their present employer. They must also state whether they are willing to work anywhere, within the country or abroad, whether they can give up their whole time to the work they obtain or what proportion of their time they can give to it, and if they are able to do unpaid work. Applications should also indicate what posts they have hitherto chiefly held, the time for which they have held them including their present post, the kinds of work, other than that on which they are engaged, which they are willing to undertake, and the name and address of two persons who can give information as to their qualifications. A list is annexed to the form of trades which are particularly useful at the present time, including the trades of an *expert farmer* and a *farm worker*.

The data collected on the 30th of last April show that between 16,000 and 18,000 technical men had been enrolled in the reserve in addition to 265,000 volunteers for shipyards.

C) THE BOYS' WORKING RESERVE (1).

The United States Department of Labour has organized the Boys' Working Reserve to meet the most urgent needs for labour and in particular the needs of agriculture. The purpose is to form squads of boys who will have proper supervision and care and will work in their holidays or for longer periods for fair and predetermined wages. The source which it is proposed to tap is that of the boys between the ages of 16 and 21, of whom there were 4,564,179 in the United States, more than two million of them not being engaged in any industry, when the census of 1910 was taken.

The Boys' Working Reserve is the result of a joint agreement between the United States Department of Agriculture and Department of Labour made early in April. The duty of taking a census of farms and ascertaining how many additional acres each farmer would plant and how much labour he would need this year, and when he would need the labour, what wages he would pay, and how much labour he could secure in his own neighbourhood was assigned to the Department of Agriculture.

This reserve's plan of organization is very simple. The national director, whose office is in Washington, reports to the Secretary of Labour. Associated with the director there are a national committee, composed of the governors of the States or the representatives they appoint, and an advisory council of experts on finance, sanitation, health, transport and other subjects. In each State a director is being chosen, and he will be responsible for the details connected with the mobilization of the boys in his State. The State directors report to sixteen district directors whose headquarters are at Boston, New York, Philadelphia, Baltimore, Atlanta, New Orleans, St. Louis, Kansas City or Omaha, Cincinnati, Chicago, St. Paul, Denver, Seattle, San Francisco, Los Angeles and Houston. Thus while each State remains practically autonomous adequate control and protection of the boys are ensured. Where State organizations for similar purpose already exist the reserve works through them.

Boys under sixteen are not enrolled, and no boy is enrolled until he has passed a physical examination and presented the written consent of his parent or guardian.

The reserve has already supplied workers, notably to agriculture and to its derivative industries, such as the canning industry.

§ 2. AGRICULTURAL LABOUR.

A) *Plan of the Department of Agriculture.*

1. *The Enquiry.* — When the United States entered the war it was anticipated that there might be a temporary shortage of farm labour which would require the special attention of the Department of Agriculture. The Office of Farm Management was entrusted with the management of

(1) Cf. our issue for February 1916, page 173.

this problem and immediately began to study it. It was agreed that the Department of Agriculture should make surveys in order to discover the needs of the farmers for labour and the sources existing in rural communities and in towns of less than 10,000 inhabitants from which these needs could be supplied, while the Department of Labour made as heretofore the surveys in the larger towns.

It was generally realized that an unusually large number of labourers had been absorbed by the enormous industrial expansion of the first years of the war and the great demand for military supplies to be exported to the allies. Moreover a considerable number of men, possibly 40,000, had been attracted to Canada as farm labourers by the liberal offers and urgent need of the Canadian government. Furthermore thousands of Mexicans passed over the international boundary under the impression that they would be forced to do military service if they stayed in the United States. Labour agents visited parts of the country in which there was a surplus of labour and by the offer of high wages induced many thousands of labourers to leave southern States, and to a less extent country districts, for employment in northern industries. Then came the draft for the army; and following on it the call for labourers to construct cantonments and for the increased shipbuilding operations of the federal government. The high wages offered in industry and for the construction of cantonments drew large numbers of men away from farms and caused a disturbance of the situation with regard to labour which was for a time quite serious, especially in the immediate neighbourhood of cantonments and large industrial enterprises. A readjustment of conditions is now however being reached rapidly.

2) *The Federal Control of Labour.* — There are two main parts of the department's programme for handling the situation: it is concerned to learn every farmer's needs for labour and to develop all possible sources of labour. The organization includes the Office of Farm Management which has general charge of the programme; four Supervising Farm Help Specialists in charge of the north eastern, north central, southern and western divisions of the United States; thirty-seven State Farm Help Specialists (generally one man is in charge of the work in each State but sometimes he is in charge of that in two or more States); County Agents or other county men; and community leaders or committees. This organization co-operates actively with the United States Department of Labour, the Extension Service of the Agricultural Colleges, State Councils of Defence, State Commissioners of Agriculture and Labour, and other organizations officially interested in the problem of farm labour.

3) *The Sources of Agricultural Labour.* — In general the work of the Farm Help Specialists of the Department of Agriculture is concerned with the farms. The specialists must secure accurate and authoritative information as to the needs for labour of every farmer in their territory. They must learn what readjustments of farm labour are possible to allow the work in hand to be done. They survey rural communities and small towns to discover prospects of securing incompletely employed labour for farm

work. The work of the Department of Labour in this connection is an extension and improvement of their system of employment offices, which are situated in the large towns and at which thousands of men apply for work. Many of these men have had experience on farms: it was found that about 10 per cent. of the labourers applying for work at employment offices in New York State in 1917 had had such experience. It is especially desirable that they should in this case be sent back to farms, and through the active and cordial co-operation of the Department of Labour an effort is being made to accomplish this. In order to bring it about more methodically one of the members of the staff of the Office of Farm Management has recently been assigned to the Department of Labour; and he will present to those in charge of employment offices the point of view of the Department of Agriculture and the farmer, and will arrange for the allotment to farm work of experienced men and prevent inexperienced men, unlikely to do the work well, from being sent onto farms.

The serious phase of the problem is the difficulty of securing a sufficient supply of experienced men. Some men have been drawn away from the farms by the attraction of higher wages in city industries and they ought to be reattracted to farms. Among miscellaneous applicants at employment offices there are experienced milkers, farm teamsters and handlers of farm machinery.

Several sources of agricultural labour have not been fully utilized:—

a) There are about 700,000 retired farmers in the United States who are not now earning money by any occupation. They have exactly the qualities needed for the direction of farming operations and the handling of complicated machinery which does not require great physical exertion. Many of them are past middle life; but most of them are still capable of efficient work on farms, and many of them have returned to farming in the present emergency and are contributing their experience, counsel and expert services.

b) There are large numbers of town dwellers who take an annual holiday during which they are willing to do outdoor work. Many of these men have spent their holidays on farms year after year and are sufficiently expert to be trusted to do nearly all kinds of farm work. There are also large numbers of men in the city industries who can be spared to work on farms when their city business is slack.

c) The experience of the past year has shown that boys are an asset which cannot be overlooked when the problem of farm labour is considered. The experiment of establishing training camps has been tried in the case of Boy Scouts, high school boys, members of the Young Men's Christian Association and the Boy's Working Reserve, and by private individuals. The camps have varied much in size and in the elaborateness of their organization and equipment. In some cases unused farms have been used as training camps; in others farmers have allowed camps to be established on their farms, and the labour thus supplied has been used by these farmers and their neighbours. The results obtained from the work of boys trained in these farms have varied greatly. Success seems to depend

largely on an efficient leader; and a certain degree of military organization and routine has been found to be desirable.

d) The British government has had an extensive and satisfactory experience of women workers; and the United States has followed this example to some extent, some training camps for women having been established. A camp was, for instance, established at Mount Kisco, New York, by private enterprise on an abandoned farm. All the work was done by girls from Columbia University and the Manhattan Trade Schools. They did all kinds of farm work, including haymaking, and were generally employed by farmers in the neighbourhood. Many of these farmers reported on their own initiative that the girls were more active and alert than ordinary farm labourers and that their services would be gladly accepted for the ensuing year.

An old institution has been revived in the bees which are organized in various towns for husking Indian corn and which thus help neighbouring farmers.

4. *The Public Service Reserve and Agriculture.* — The Public Service Reserve is conducting an extensive campaign in order to enrol men for work on farms during the emergency which the war creates. The men enrolled are ready to work for one or two days a week on farms in their own neighbourhood or for a month or more at a time on other farms. It is intended that they shall supplement those who can work for their whole time throughout the farming season, and that they shall constitute a reserve which can be drawn upon as demands arise. In order to avoid overlapping the Reserve Directors are consulting the Farm Help Specialists in their respective States, and the local reserve agents are co-operating with the 2,300 county agricultural agents and seeking their expert advice. The State directors are also, through the local agents, ascertaining whether farmers can adequately house in proper conditions the labourers they engage.

In addition to these workers of the reserve about 250,000 boys between the ages of sixteen and twenty-one have been mobilized by the United States Boys' Working Reserve to work on farms this summer. More than 150,000 boys were thus employed last summer. In some States boys were released early from school for this purpose. The New York State Food Commission appropriated \$50,000 to the movement for the employment of boys on farms within the State; Pennsylvania similarly appropriated \$50,000; and Connecticut \$25,000. About 15,000 farmers in Indiana have asked for the help of boys this year. Maine employed 700 boys last year and will employ many times that number this year.

5. *Placing Women on Farms.* — The women's division of the United States Employment Service is engaged, together with the Department of Agriculture and the women's committee of the Council of National Defence, in examining the question of supplying women to work on farms in the present emergency. The Department of Agriculture is ascertaining through 2,300 county agents in what States and for what work farmers want women, and is securing through its extension service a list of women who

might act as leaders if training camps for women farm helpers were established. The Employment Service is registering women for farm work through its women's division and with the aid of the farm labour division, and it will place them on farms. The women's committee of the Council of National Defence is considering the questions of training camps for women, the necessary educational and recruiting propaganda, and welfare work for women on farms.

The Young Men's and Boys' Division is analogously organized, its federal council being constituted by men's organizations.

This sketch would be incomplete without a reference to the activity of the National League for Women's Service which recruits women and girls. It serves however not agriculture but only industry.

6. *Intensification of Work.* — While seeking to obtain numerous workers to supply those needs of agriculture which have been accentuated, the United States government has also made efforts in another direction, in that namely of utilizing and distributing labour in the best possible way and of intensifying work.

The best informed economists based on data referring to the farming season of 1917 an opinion that grain growing and other agricultural work could be accomplished without additional labour, if labour were accelerated and all waste of effort eliminated. Thousands of farms have succeeded in doing this. A success of the kind is particularly exemplified in Canada, a country of eight million inhabitants which has sent abroad half a million fighting men and has none the less been able to increase its industrial activity and its export of all important agricultural products. In other words Canada is, with less labour, producing much more than formerly.

The United States are making an effort in the same direction which has already met with some happy results. The original impulse was due to the individual initiative of certain farmers. This intensification of effort may, in the present circumstances, be a most important element in the alleviation of the effects of the progressive reduction by the war of the numbers of tillers of the soil. It can however only be realized by a division of labour as scientific as that which obtains, for example, in the engineering industries.

§ 13. THE UNITED STATES EMPLOYMENT SERVICE.

We think it worth while to illustrate this paper by reproductions of the forms used by the United States Employment Service in dealing with employers and employees in agriculture.

FOR USE IN MAKING APPLICATION FOR FARM HELP

U. S. DEPARTMENT OF LABOUR

U. S. EMPLOYMENT SERVICE

WASHINGTON.

Write name and address plainly

Date

1. Employer Post Office
 (Name)
 County of State of
 Telegraph Office Railroad Station
2. References
3. Number of men you wish to hire
- 4 (a) Nature of duties (State whether truck farm, stock farm or

 (b) State number of cows each man must milk
5. (a) Nationalities acceptable (State whether or not knowledge of
 English is necessary).
 (b) Will English speaking men of any other nationality be accept-
 able?
 (c) Do you desire experienced help or "green hands"?
6. (a) Married or single men preferred:
 (b) Do you require that married men be accompanied by wives?
 (c) Will children be objectionable?
7. (a) Will you advance transportation from points within the United
 States?
 (b) If so, will amount be deducted later from employee's wages?
 (c) Will you refund the money so deducted after a period of ser-
 vice, and, if so, under what conditions?
8. (a) What money wage will you pay married man:
 green hand? (Winter) \$ (Summer) \$ per month,
 experienced hand? (Winter) \$ (Summer) \$ per month;
 and will house (furnished or unfurnished), garden patch, fuel, milk, etc.
 be provided free in addition to wages?
 (b) Would services of wife be required, and, if so, her duties and
 compensation therefor?
 (c) What wages will you pay single man;
 green hand? (Winter) \$ (Summer) \$ per month;
 experienced hand? (Winter) \$ (Summer) \$ per month;
 and will board, lodging, washing, etc. be furnished free in addition to
 wages? (Yes or no).
 (d) Winter pay (date) to (date). Summer pay (date) to (date).
9. When will services of this help be required? (State day and month
 when you desire help to arrive).

10. Hours of labor :
 11. Will employment be permanent?
 12. Size of farm or place acres. Under cultivation acres.
 No. of men on place
 13. Do you employ extra help for any part of the year ; if so, how many ; for what kind of work ; at what pay ; when and for how long a period of time ?
 14. Remarks

It is agreed that the undersigned will keep the Service informed as to need of men applied for above, and advise by telegraph (at employer's expense) in case said help is secured from other sources ; this in order that men may not be directed and find position filled upon arrival.

(SIGN HERE)

READ CAREFULLY BEFORE FILLING OUT BLANK.

N. B. — The party filling out this blank may return the same to the postmaster or transmit same through the rural mail carrier or through the officer in charge of any branch post office, whereupon it will be forwarded to destination free of charge for postage. If transmitted otherwise the usual postage will be required.

In addition to answering carefully all the questions on this blank, your especial attention is called to the following :

QUESTION NO. 4. NATURE OF DUTIES. — Define whether a farmer or a farm laborer is wanted. A farmer will be understood to mean one who is competent to take charge of and operate a farm without supervision. A farm laborer will be understood to mean one who has had some experience but is to work under the immediate direction and supervision of the employer. If a "green hand" (one who has had no experience at farm work but willing to learn) will be accepted as a farm laborer, it should be so stated. Also make it clear whether you operate a dairy farm, stock farm, truck farm, etc. If immigrant help is acceptable, so state. "Experienced" are those with experience in native land or in the United States ; "green" those with no farming experience.

QUESTION NO. 5. NATIONALITIES PREFERRED. — As much scope as possible should be allowed in the matter of nationalities which would be acceptable to you. Always state whether or not a knowledge of English is necessary.

QUESTION NO. 6. MARRIED OR SINGLE MEN PREFERRED. — If your preference be for a man and wife, state whether or not a single man will answer, provided we are unable to supply the married couples. This is asked because at times there is a scarcity of the latter.

QUESTION NO. 7. WILL YOU ADVANCE TRANSPORTATION FROM POINTS WITHIN THE UNITED STATES? — The necessity for this question is due to the fact that many good men apply at our branch offices who would

willingly go to distant points but are unable to do so without aid from the prospective employer. Such advance would, of course, be made through a representative of this division, who would see that the employee was properly ticketed and then mail his baggage check direct to the employer interested, which would serve somewhat as a precaution against an employee going astray.

It must be distinctly understood, however, that the responsibility of the service and its representative ends when the said employee has been placed upon the train or boat. No guaranty is given or implied that he will actually arrive at his destination.

QUESTION No. 8. WAGES. — This question must not be left unanswered, because of the fact that an employee wants to know as to the wages he is to receive before accepting an offer, and this point should be definitely stated. If wages are stated at so much per day, it should be made clear whether employee is paid for every day in the month or only for such day as work can be performed. Also approximate pay received per week or month in such case :

This service is public and no charge is made to employer or employee.

For the information of the local office this form is kept with other data on file. There is space on it on which to note the number of workers sent to the employer concerned, with their names and addresses and the date on which they are sent, and the result of sending them.

APPLICATION FOR FARM HELP.

U. S. Dept. of Labor.

U. S. Employment Service.

Name of farm

Date

P. O. address

Telephone exchange
and numberKind of farm (general, stock, dairy, fruit
or truck)

County

Age limit
of help wantedNumber
wantedKind
of workDate
wantedLength of
time wantedProbable
wagesExperienced.
Inexperienced men with families.Experienced.
Inexperienced single men. . .Experienced.
Inexperienced older boys. . . .Experienced.
Inexperienced female workers. . .Experienced.
Inexperienced day workers. . .If you can use colored help, give number; if foreigners, give number and nationality
preferred.

Colored

Foreigners

Number of "help wanted" required to milk

Number of cows milked

State what is furnished (board, house, garden, etc.).

For single help

For married help

Full directions for reaching farm from nearst city, town or village.

Transportation expense.

The postmaster or rural carrier is also ready to help the farm worker to obtain employment by furnishing him with the following form, to be filled in and then returned to the postmaster.

FARM WORKER'S APPLICATION FOR EMPLOYMENT.

U. S. DEPARTMENT OF LABOUR. — U. S. EMPLOYMENT SERVICE.
WASHINGTON.

Date

Name Post office

Age Height Weight Race

Where born (name of country)

If of foreign birth, how many years have you been in the United States?

Are you a citizen of the United States?

If married, name of wife and children

Will family accompany you? (Yes or No)

If so, is wife able and willing to accept employment as domestic?

What languages do you speak?

Name and address of last employer

Cause of loss of position

How long employed by last employer?

If now employed, state reason for desiring change

In what States will you accept employment?

Wages expected

Are you strong and robust? (Yes or No)

State kind of farming you have done, where service was performed, and whether or not you can milk.

(SIGN HERE)

§ 4. SOME PARTICULAR ASPECTS OF THE PROBLEM OF AGRICULTURAL LABOUR.

A) *Foreign Labour and Mobile Labour.*

The immense extent of the territory of the United States, the varieties of climate and agriculture found in different States and different parts of one State, the special conditions of the population and the nature of the work which has to be done imply that, even when there is a federal control of agricultural or other labour, a large amount of initiative has to be left to the competent organizations in individual States.

Thus in the South West, where agriculture has a particular character, the difficulties of the problem of labour have to be solved in a special way. Much of the work of cultivating sugar beetroot in South California and Colorado and cotton in the valleys of the Imperial and the Salt Rivers has hitherto always been done by Mexicans, Americans not being able to stand the climatic conditions. It is therefore necessary to import foreign labourers, especially Mexicans as was done last year. In the same way an agreement was made to bring 30,000 men from Porto Rico for the cotton harvest,

although the bad harvest prevented the arrangement from being put into practice. This is however a source of labour to which it will be possible to have eventual recourse for Texas and the South West States.

Moreover every year a regular army of workers is brought together for the harvest in the Central wheat belt. The harvest begins about 10 June in Oklahoma and gradually travels northwards, as the corn ripens, reaching North Dakota about 15 September. Thus the wheat harvest provides continuous work for some three months. The harvesters come from many States and their financial circumstances are very various. Many college students and many town dwellers from the East make an annual pilgrimage to work in the wheat belt. The United States Employment Service does not fail to send a large number of workers into this district, wherever work is pressing. It is the part of the Department of Agriculture to supply information as to places in which there is a need for labour, as to the number of workers needed and the wages and accommodation offered to them. This information is communicated to the workers, and suitable persons among them are sent where they are needed. County agents at the same time inform themselves as to the time at which the harvest is to take place in their districts. Thus labour is made to circulate. The hands travel northwards, from farm to farm, almost automatically, from the beginning to the end of the season.

Last year there was no time to import outside labour for the harvest and the fruit picking in Oregon; but civic solidarity made the solution of the resultant problem possible. The State Farm Help Specialist and the county agents addressed a warm appeal to town dwellers to come to the help of the farmers. In response many small towns completely interrupted their ordinary business in order to allow both men and women to do harvest work.

In many districts of other States like events took place.

B) The Organization of Agricultural Labour in Ohio.

At the outbreak of war in April 1917 the Industrial Commission of Ohio was conducting seven State-city labour exchanges. The management of these was transferred to the Ohio branch of the Council of National Defence and fifteen additional offices have been established by the council in co-operation with local communities which pay part of their expenses. Each office serves a district consisting of several counties, and the whole system is directed by a central clearing house at the State House in Columbus.

Because it was desired to supply the farmers' needs for labour permanently, appeals for hands were not made in the newspapers but labour exchanges were established in the charge of efficient agents. The system of these exchanges was in working order on 1 May 1917, and in the first season Ohio farmers were supplied with more than 7,000 hands. The employment bureaux received reports that more than 5,000 of these men were working

on the farms to which they were sent, and the proportion actually doing so was far greater.

The directors of the system realized that no effective organization for supplying farm labour can be built up in a few months, and that temporary campaigns, launched when the need is greatest, cannot ensure a steady flow of labour to meet changing needs. During 1917 therefore they sought to increase the efficiency of the twenty-two employment bureaux, developing better business methods, training better employment agents, bringing the agents into closer contact with the central office, and devising the best methods of transferring labour from one part of the State to another by means of the central office.

The results of this work are seen in the fact that in the ten months ending on 28 February 1918 the employment bureaux registered 463,400 workers, men and women. That is, allowing for duplications caused by applications for work at several offices by single individuals, they mobilized about 30,000 workers a month. They were able to offer about an equivalent number of jobs, and they actually placed in work about 23,000 men and women every month. The exact number they placed in the ten months was 229,221.

During these ten months the staff — superintendents and others — of the employment bureaux familiarized themselves with the needs for labour and the labour supply of their several districts.

In February the machinery of the Ohio Employment Service began to work for the farmers of Ohio. First came an order from the central office that no search for labour should be made until the actual demand for farm workers had been accurately ascertained. To advertise for labour long before it is needed disorganizes the labour market.

The superintendents of the bureaux make tours of their districts themselves or in the person of their assistants in order to ascertain the demand for farm workers. They arrange meetings in school buildings, churches or other convenient places, and at these explain what their bureau can do for a farmer, how it works, what they ask the farmers to do. Forms of "Application for Farm Help" are handed round at these meetings, and such of them as are filled up are collected after the meetings.

A farmer is held to be bound to engage the labourers sent him by an employment office if they fulfil the conditions of his order as stated on the form.

Some machinery is needed in every rural community to connect the demand for and the supply of labour. It is a duty of the superintendent of a bureau to get the town clerk, the secretary or president of the "grange", the bank cashier or any other interested person to act as agent for the bureau in each community. The work and the manner of filling in the forms should be explained to this agent and a supply of the forms left with him. After the superintendents of the bureaux had toured their several districts for about two weeks 476 of these local agents had been appointed. In addition the Agricultural and Food Division of the Ohio Council of Defence employs paid county agricultural agents in thirty-seven counties.

These are scientifically trained men whose business it is to advise farmers on such technical matters as the selection of seed, the preparation of the soil, drainage and the elimination of pests. Associated with such an agent in each county there is an unpaid food commissioner under whom are township food commissioners, one for each county. All these men are closely connected with the employment organization through a chief farm agent at the central office who works directly with the State director of employment. The assistant professor of rural economics at the Ohio State Agricultural College has been detailed to give all his time to this important work. Through these various agencies the employment system reaches every rural community of the State.

Every month the number of farm workers demanded is balanced with the number supplied, and a special report as to orders not complied with is sent to the central office by each district superintendent. We append a copy of the form used for these reports.

Summary of unfilled active farm orders to . . .

1) Number of married men called for at each classified wage :

\$ 18-\$ 20	\$ 20-\$ 25	\$ 25-\$ 30	\$ 30-\$ 35	\$ 35-\$ 40	\$ 40 and up.

2) Number of single men called for at each classified wage :
(same figures as above)

3) Number of older boys called for at each classified wage :

under \$ 15	\$ 15-\$ 18	\$ 18-\$ 20	\$ 20-\$ 25	\$ 25-\$ 30	\$ 30 and up.

4) Number of female workers called for

5) Number of day workers called for at each classified wage :

Under \$ 1	\$ 1-\$ 2	\$ 2 and up.	\$ 2-\$ 3	\$ 3 and up.	Piece-work
w. board	w. board	w. board	no board	no board	

Ohio's method of handling the problem of agricultural labour has had two outstanding features. In the first place there was no advertisement for labour until the actual demand for it, as shown by the farmers' own orders, had been ascertained. In the second place each man seeking work was made to apply for it at the office nearest his home, and was assured of a job at the wages for which he was asking before he was sent to a distant place.

For most unskilled workers labour on farms has advantages over work in towns. The Ohio Employment Service advertises these advantages in circulars sent to all the newspapers of the State. We reproduce a specimen circular :

FARM JOB VERSUS CITY JOB.

For a Married Man.

A farm job at \$ 30 per month equals a city job at \$ 105
 A farm job at \$ 35 per month equals a city job at \$ 110
 A farm job at \$ 40 per month equals a city job at \$ 115
 A farm job at \$ 45 per month equals a city job at \$ 120

Not considering the possibility of raising some stock or produce on shares, which is usual.

For a Single Man.

A farm job at \$ 25 per month equals a city job at \$ 80
 A farm job at \$ 30 per month equals a city job at \$ 85
 A farm job at \$ 35 per month equals a city job at \$ 90
 A farm job at \$ 40 per month equals a city job at \$ 95.

Not considering possible share in profits or privileges such as use of horses.

These figures are based on the following comparison of monthly cost of living on the farm and in the city.

Married Man on Farm and in City.

	Farm job	City job
Total cash income	\$ 40	\$ 100
House rent	Furnished	\$ 20
Groceries	Exchange of produce	33
Milk	Furnished	4
Fuel	\$ 3	5
Light	1	2
Insurances and taxes	3	3
Clothes and incidentals, including car fare, lunches, amusements, church, etc	13	28
Total expenses	20	95
Balance saving	20	5

Single Man on Farm and in City.

Total cash income	\$ 35	\$ 90
Board and room and laundry	Furnished	\$ 37
Insurance	\$ 3	3
Clothes	6	9
Car fare, lunches amusements, church, lodge, athletics charities etc.	5	20
Total expenses	14	69
Balance saving	21	21

Many farmers offer comparatively high wages — \$ 40, \$ 45 and more a month with board, lodging, laundry and other privileges. Such places are easily filled. Others at from \$ 30 to \$ 40 a month are attractive to many low paid and irregularly employed workers in the towns. The greatest difficulty is found in filling places at \$ 30, \$ 25 and less a month. Wages were commonly paid at these rates in agriculture before the war, and much of the scarcity of agricultural labour is due to the fact that the

rise in wages in agriculture has not kept pace with that in other industries. The employment service of Ohio distributes accurate information as to prevailing rates of wages. Farmers are told by advertisements in the newspapers and by the employment offices directly that these rates are from \$35 to \$45 a month, and that if they pay them they will have less trouble in securing the labour they want.

The greatest difficulty of all encountered in supplying the demand for agricultural labour lies in the fact that sources of labour are often far removed from places of employment. The central office of the Ohio Employment Service has devised means to overcome this difficulty.

The superintendent of each employment bureau sends to the central office a list of the positions he cannot fill with the applicants for work at his own bureau and a list of the applicants whom he cannot place in his own district. Both positions and applicants are described in detail, in the case of farm hands as in that of other classes of workers. The central office enters this information on special forms, and, for convenience of reference, gives each item a number and letters to show from which branch office it came. The following are specimens of the lists made on these forms :

POSITIONS REPORTED TO CENTRAL OFFICE

DATE

Serial No.	Description	Supt.
I 320 CH.	One farm hand, married man with small family, colored preferred, \$1.50 per day of 10 hours; the prevailing rate will be paid during harvest, corn cutting and corn husking	
J. 321 CH.	One experienced farm hand; single, \$1.25 per day with room, board and laundry, this is on a large up-to-date farm and they want a man for general farm work; a good place for a good man	
J. 322 CH.	One experienced farm hand; single; general farm work; \$35 per month with room, board and laundry	
J. 323 CH.	One experienced farm hand; single; 17 to 20 years old preferred; must be accustomed to the care and handling of horses; \$1 per day with board, room and laundry.	
J. 324 CH.	Three farm hands; married; \$1.50 per day with the usual considerations such as house, meat and milk allowances; general farming	

APPLICANTS AVAILABLE FOR TRANSFER

Serial No	Description	Supt.
A 162 E	<p>Farmer. Widowed 41 years of age. Lifetime experience, sober and industrious. Willing to rent a farm of 100 to 300 acres on the halves. Prefers to locate in Marion or Seneca counties</p> <p>Farmer with 3 sons able to work; all 4 can milk. This family would like to secure work in a large dairy or dairy and fruit farm; have had considerable experience in such work. Will work by the year or rent a farm on the shares, or will pay cash rent if stock and tools are furnished. Have lived in the city two years but are anxious to get onto a farm again. No stipulation in regard to minimum wage.</p>	

These lists are sent daily to each of the twenty employment offices and a revised engrossing list is made once a week. The superintendent keeps his records in the last column. This method more than 18,000 workers have been transferred from one part of the State of Ohio to another in eight months.

The fare is sometimes paid by the applicant for work and sometimes by the employer; most often, in the case of farm hands, it is advanced by the employer and subsequently deducted from wages.

The importance of this system of placing labour will increase with the confidence of farmers and workers in its machinery.

§ 5. LAWS MAKING WORK COMPULSORY.

In some States, notably Maryland, Wisconsin, West Virginia and Florida, work has been made compulsory by law; and it seems probable that this example will be followed in other States.

By way of illustration we will examine the case of Maryland where the Compulsory Work Law has had effect since 20 August 1917. It provides for the registration of all male persons between the ages of eighteen and fifty who are not regularly and continuously employed. There is provision for certain exceptions, as for men not able-bodied, men having seasonal occupations and men out of work because of differences with their employers, and for students and those learning trades. Section 2 of the Act provides specifically "that all persons able to support themselves by reason of ownership of property or income, and those supported by others, shall be included among those required to register under this Act".

Any person amenable to the law who fails to register voluntarily may be arrested, and if he cannot show that he is entitled to one of the statutory exemptions may be fined not more than \$ 50 and costs and be compelled to register. Registration is with the clerk of the Circuit Courts of counties

on the clerk of the Superior Court of Baltimore city. Those registered shall be assigned, for a period of no more than six months, to one of certain occupations designated by proclamation. The latter include work on State or county roads or the streets of Baltimore city, in canneries, on farms, in hospitals, box factories and shipyards, and "work in the State of Maryland by or in behalf of the United States or by and in behalf of the State of Maryland in connection with the prosecution of the present war". It is further provided that the number of hours per day and the number of days per week that the registrant shall work shall be in accordance with the useful and lawful requirements of the occupation to which he is assigned, and that he shall receive the wages usual for such occupation. If he is assigned to a private employer the State guarantees the payment of his wages. If he fails to take the work to which he is assigned he is liable to be arrested, and if he is convicted may be fined an amount not more than \$500 or imprisoned for no more than six months, or incur both these penalties.

There were 819 registrations under this Act up to 1 November 1917, namely 695 voluntary registrations and 124 arrests. In addition a considerable number of registrations in rural districts had not then been reported. Of the 819 persons who registered 562 were assigned to occupations. Of these 562 there were on 1 November 1917 five who had taken the work assigned to them, 209 as to whom returns had not been made, and 248 on whom summonses had been served. Of the latter 248 the defence that they already had work was successfully established by 233, and warrants of arrest were issued for the remaining 15.

It is difficult to estimate the contribution to labour which will be a result of the Maryland Compulsory Work Act. It is stated however that since it became effective large numbers of habitual loafers have disappeared from their habitual haunts and that the idleness of the negro population in particular has diminished.

§ 6. THE RISE IN AGRICULTURAL WAGES.

We have already referred to the comparatively low rates of wages obtaining in agriculture and the slowness of farmers to raise wages as causes of the dearth of agricultural labour. Farmers on the other hand claim that the great increase in the cost of labour constitutes, in view of the present price of products, a burden which could not suffer any addition without a risk of reduced production.

The United States Department of Agriculture has recently made an enquiry into the wages paid for agricultural labour in 1917 in all parts of the country, and has found as follows:

"Wage rates per month in hiring by the month or season with board in 1917 ranged from \$ 21.88 in the South Central States to \$ 36.23 in the North Central States west of the Mississippi River and \$ 44.25 in the Western Pacific, with a national average of \$ 28.87. Without board the monthly rate for the United States was \$ 40.43, with a range from \$ 30.80 in the

South Atlantic States to \$ 49.46 in the West North Central and \$ 63.59 in the Western and Pacific. Harvest wages with board were as high as \$ 2.77 per day in the West North Central States and as low as \$ 1.55 in the South Atlantic, while the United States average was \$ 2.08. The rates without board were 35 to 59 cents higher in the various sections.

"Outside of harvest, day rates of wages with board ranged from \$ 1.17 in the South Atlantic States to \$ 1.91 in the North Atlantic and \$ 2.03 in the West North Central, and the United States average was \$ 1.56. Without board the rates were 35 to 95 cents higher.

"As a general average for the whole country the increase in the rate of wages per month with board in 1917 over 1916 was \$ 24.2 per cent. The increase over 1910 was 50.3 per cent. In the average rate of wages for harvest labour with board the increase in 1917 over 1916 was 23.1 per cent.; without board 22.7 per cent. For day labour, outside of harvest, farmers paid 23.8 per cent. more with board and 24.7 per cent. more without board. The general fact is that the rate of wages for farm labour increased almost one quarter in one year and about two fifths to one half in seven years.

"The lowest relative advance in rate of wages from 1916 to 1917, 12 per cent., is found in the Western Pacific States in hiring by the day with board for work outside of harvest; and the highest, 36.1 per cent., in the South Atlantic in hiring by the month with board.

"Difficulties of obtaining labour were more generally least in temporary service in harvest and more generally greatest in similar service outside of harvest. To obtain labourers for a whole season or a year with board throughout the various groups of States was easiest in the East North Central, most difficult in the South Atlantic. Hiring by the day was the easiest proposition in the Western and Pacific when with board and most difficult when without board.

"The South experienced the greatest effects of the increase of farm wages in 1917 over 1916, expressed as a percentage of increase but the greatest effects in terms of absolute increase in dollars and cents were felt in the other great groups of States, most of all in the Western and Pacific, next below in the North Central, and third in order in the North Atlantic group. The largest absolute increase in wages in the south was in the South Atlantic States, in hiring by the month or season with board. Monthly wage rates increased absolutely in the average for the United States by \$ 5.33 in seasonal or yearly contracts when without board, and \$ 5.62 when with board. Day wage rates increased by 30 to 47 cents in the several varieties of contracts.

"Farmers found a trying situation in 1917, when their needs for farm labour increased and the supply of labour diminished, with accompanying advance of wage rates over those of 1916, averaging 24.2 per cent. for all classes of rates. During the same time the prices paid by them for 74 articles of common use on the farm by the family and in the household, increased 30 per cent., and the prices received by them for their crops increased 60.7 per cent."

CONCLUSION.

There are no statistics sufficiently complete to allow the number of labourers available for employment by farmers last year to be ascertained. Agricultural labour, which it is now attempted to organize on a federal basis for the first time, evades the control of employment offices more easily than industrial labour. The multiplicity of the agencies which are co-operating in this organization, and which preserve much independence, further complicates the statistician's task.

It is not certain that a larger number of workers was engaged in 1917 than in 1916. In some districts a diminution was noted. Thus in the counties of North Dakota 5,376 workers were engaged in 1917 and 5,900 in 1916. However it is certain that the distribution of labour tends to become more and more scientific. It has already, in the last months, been regularized, and will be even more so in the current year. The fitting of aptitudes to opportunity, the putting in his right place of a worker who has specialized skill: these matters have a social and permanent, not merely a momentary importance. Their consequences will certainly be felt in future years. The instability of the labour supply in the United States was determined by, among other factors, the uncertain position of a labourer on a farm where he did not form part of a farmer's family and enjoyed too little consideration, being often boarded and lodged defectively and in unhygienic conditions.

It may be hoped that the scientific placing of workers and their supervision by a State agency included in a federal organization will bring about an improvement in the living conditions of the rural working class, will steady its position, render wages uniform in every district in which economic and cultural conditions are approximately equal, allow land to be used more productively, and bring into existence many skilled agricultural workers while it reduces the shifting mass of unskilled casual labour.

Present circumstances have moreover induced farmers and their families themselves to contribute much more work than previously. Hence has arisen a welcome increase in production and a lessening of the need for outside labour.

It may therefore be concluded that the supply of agricultural labour in the United States is not really insufficient. If the existing supply be used judiciously and scientifically, if individual effort be increased and the official regulating organs, skilfully co-ordinated, act in harmony with each other, production will, unless new facts supervene, be not only maintained at its present level but actually increased.

As for the part which the United States Employment Service will be called upon to play at the time of demobilization, it is a considerable one. It is on the efficient working of the machinery of this service that a return without friction to the conditions of normal life will depend, and those conditions are being largely determined by the economic circumstances of the present time.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL.

AUSTRALIA.

RATES OF AGRICULTURAL WAGES IN WEST AUSTRALIA IN 1916. — *Western Australia: Statistical Register for the Year 1916 and Previous Years. Part V. Land Settlement, Agriculture, Live Stock, and Meteorological Statistics. Perth 1917.*

This table shows the rates of the wages paid in West Australia in 1916 for agricultural and pastoral labour. Unless otherwise stated, the figures refer to weekly wages including keep. The high maxima are due to the lack of labour consequent on the war.

Occupation	South-western agricultural and pastoral districts						Northern pastoral districts					
	Maximum		Minimum		Average		Maximum		Minimum		Average	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Ploughmen	3	—	1	15	2	5	—	—	—	—	—	—
Orchard and vineyard hands:												
with keep	2	5	1	10	2	1	—	—	—	—	—	—
without keep	3	—	2	5	2	14	—	—	—	—	—	—
General farm labourers	3	—	1	15	2	5	—	—	—	—	—	—
Lads up to 20 years of age	1	15	—	15	1	5	—	—	—	—	—	—
Married Couples	3	—	2	10	2	10	3	10	2	10	2	10
Female Servants	1	10	—	15	1	—	3	—	1	10	1	10
Stockmen	2	—	1	10	1	10	2	—	1	10	2	—
Boundary riders	1	10	1	5	1	5	2	—	1	10	1	10
Bullock drivers	2	10	2	—	2	—	3	—	2	—	2	10
Sheep drovers	1	10	1	5	1	5	2	—	1	10	2	—
Sheep washers	2	—	—	—	1	5	—	—	—	—	—	—
Shearers, per 100 sheep	1	7 6	1	7 6	1	7 6	1	7 6	1	7 6	1	7 6
Shed hands, with keep	3	—	3	—	3	—	3	—	3	—	3	—
Shepherds	2	—	1	—	1	5	2	—	1	5	1	10
Teamsters:												
with keep	3	—	1	15	2	—	3	—	1	15	3	—
without keep (exceptional cases).	3	10	2	18	3	—	3	10	2	18	3	—
Bush carpenters:												
with keep	2	—	1	10	1	15	2	—	2	—	2	—
without keep	2	14	2	14	2	14	3	—	3	—	3	—
Hut keepers	1	—	1	—	1	—	—	—	—	—	—	—
Men cooks	2	—	1	5	1	10	2	—	1	5	1	10
Men generally useful:												
with keep	1	10	1	10	1	10	2	—	2	—	2	—
without keep (exceptional cases).	2	—	2	—	2	—	2	10	2	10	2	10

GREAT BRITAIN AND IRELAND.

AGRICULTURAL WAGES IN GREAT BRITAIN. — *The Labour Gazette*, London, June 1918.

Minimum Rates of Wages and Rates of Payment for Overtime in England and Wales. — The Agricultural Wages Board for England and Wales has continued those activities in the matter of fixing rates of wages and conditions of work in agriculture to which we have already referred (1). An order of the Board which came into operation on the 27th of May fixes the minimum wage in Northamptonshire of male agricultural workers, eighteen years old and older, at 30s. for a week of six working days of 54 hours each from the first Monday in March to the last day in October and of 48 hours during the rest of the year.

The Board has also issued further notices, proposing to fix minimum rates for the same class of workers in Suffolk, Oxfordshire, Warwickshire, Surrey, Worcestershire, Devonshire, Gloucestershire, Leicestershire and Rutland, Herefordshire, Kent, Brecon and Radnorshire, Dorset and Somerset. The rate is calculated on the basis of a six-day working week of 54 hours from the beginning of March to the end of October and of 48 hours from November to February inclusively, except in Oxfordshire where the six-day working week is taken to have 52 hours all the year round, and in Herefordshire where it is taken to have 56 hours in summer. The minimum weekly wages are 30s in Suffolk, Warwickshire, Worcestershire, Oxfordshire, Gloucestershire, Dorset, Brecon and Radnor, and Somerset; 31s in Devon, Herefordshire, Leicestershire and Rutland; 33s in Kent; and 34s. in Surrey.

The Board has given notice that it proposes to fix differential rates for overtime for Norfolk, Northamptonshire, Essex, Buckinghamshire, Cambridgeshire, Huntingdonshire, Bedfordshire, Berkshire, Oxfordshire, Warwickshire, Worcestershire, Leicestershire and Rutland, Gloucestershire and Somerset. The rates proposed are 8 $\frac{1}{2}$ d. an hour for all overtime on weekdays and 10d an hour for all time for which work is done on Sundays; except in Essex where the corresponding rates are 9d. and 11d. an hour, respectively; and in Leicestershire and Rutland where they are 8 $\frac{1}{2}$ d. an hour for the first six hours of overtime on weekdays, and 9d. an hour for all subsequent overtime on weekdays and all time for which work is done on Sundays.

By another notice the Board proposes to fix 36s. a week, for all the year round and for a week including Sundays, as the minimum rate of wages for team-men, cowmen and shepherds in Norfolk. The hours of work are to be those customary in the area for these classes of workers, and payment for overtime is to be made at the rate of 8 $\frac{1}{2}$ d an hour on weekdays and 10d. and hour on Sundays.

(1) See our issue for May 1918, page 436.

Objections to any of the proposed rates may be lodged with the Wages Board within one month of the date of the notices.

Estimation of Rent as Part Payment of a Minimum Wage. — At meetings of the Wages Board held in May a report was presented by the committee appointed to consider and report upon the general principles which should determine the value at which the rent of cottages should be assessed as constituting a part payment of wages.

The committee recommended that the occupation of a cottage held from an employer should constitute a benefit or advantage received as part payment of wages in lieu of payment in cash, except in the case of a cottage stated by a sanitary authority to be unfit for human habitation. In view of the existing legislation restricting the raising of rents, and of the fact that in making their recommendations as to minimum rates of wages the various District Wages Committees seem to have assumed that the existing practice with regard to the tenure of cottages will continue for the present, the committee recommended that the occupation of a cottage should be reckoned as worth 3s. a week, less any rent or rates paid by the occupier, unless its inadequate accommodation, need of repair or sanitation lessened its value when an appropriate reduction from the value of 3s. a week should be made by the District Committee. The committee reaffirmed their view that the minimum rates of wages fixed should be sufficient to enable an economic rent to be paid; and that as soon as the present statutory limits upon the increase of rents were removed steps should be taken to secure this end, and at the same time to define the value of the occupation of a cottage on a corresponding basis.

The report was adopted by the Board, but no ensuing proposal will be formally issued until the District Committees have had an opportunity of reporting thereon.

Provision of Board and Lodging or Single Meals as Part Payment of a Minimum Wage. — A report, also presented by the same committee, on "allowances" recommended that the provision of board and lodging or the provision of meals should be defined as a benefit or advantage which might be received in lieu of payment in cash for the purpose of any minimum rate of wages fixed under the Corn Production Act. This report also was adopted by the board; and it was decided that each Wages Committee, in districts in which the custom of giving board and lodging or partial board to labourers prevails, should be requested to recommend the maximum value at which such benefit or advance should be reckoned per day or per a working week of six or of seven days.

Duties of Agricultural Wages Committees in Scotland. — The Agricultural Wages Board for Scotland has made regulations, dated 14 May 1918, as to the duties incumbent on the District Agricultural Wages Committees and the Central Wages Committee in Scotland.

These regulations provide that the District Committees shall: *a*) define the benefits or advantages which may be reckoned as payment of wages in lieu of cash for the purpose of any minimum rates fixed under the Corn Production Act; *b*) limit or prohibit, if necessary, the reckoning of such benefits or

advantages as payment in lieu of cash ; c) determine any question which may arise as to the value of such benefits or advantages; d) define by order, after giving notice and considering objections, the employment which is to be considered to be overtime employment for the purpose of any differential rate of wages for overtime fixed under the Act.

The Central Committee is to define the general principles on which benefits or advantages, which may be reckoned as payment of wages in lieu of cash, are to be valued, and to intimate such definition to the District Committees.

MEXICO.

RECENT PROVISIONS FOR LETTING STATE WOODS IN MEXICO — *Diario Oficial*, No 51, Mexico, 2 March 1918.

The government of the United States of Mexico issued on 27 February 1918 rules of an administrative character for the direction and regulation of contracts for the letting of State lands and woods.

According to these rules contracts for the letting of national land which are drawn up by the Secretariat of Agriculture should conform to the provisions of Article 3 of the Federal law of 18 December 1909 and to Articles 13, 14, 15 and 16 of the relevant regulation of 16 June 1910. The questions and proceedings referring to the contracts will be transmitted to the Agricultural Management of the Secretariat.

As to contracts for realizing the profits of woods on national land, they must conform not only to the provisions in Article 23 of the Woods Regulation of 1 October 1894 but also to the following general rules :

Concessionaries must pay two distinct fees — one, for the right to take products from the woods, at the rate of 50 pesos of national gold for every thousand hectares, to be paid in advance every year at the office indicated by the Secretariat ; the other, for the right to derive profit from forest products, at the following rates :

Hule : 110 pesos, national gold, per ton.

Chicle : 50 pesos, national gold, per ton.

Cashew-nut or cedar, 10 pesos, national gold, per tree.

Dye trees : 2 pesos, national gold, per ton.

Second-class wood : 5 pesos, national gold, per tree.

Third-class wood : 1.50 pesos, national gold, per ton.

For other products, not specified in this tariff, the Secretariat will fix for individual cases the rights to be paid either directly or by means of the Secretariat's general agencies. These payments also are made in advance, at the beginning of every working season, and concessionaries will be obliged to declare to the general agency of the secretariat what quantities of them they propose to take, in order that the office may issue the payment orders and the work may be authorized. Whenever the concessionaries seek to obtain a larger production than that they have declared,

INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL

they must make a new declaration to the general agency of the ministry, pay the quotas falling due and obtain the authorization to begin their work.

The regulation we are examining subsequently notes that contracts letting national lands have reference only to the profits realized by individuals in woods, and declares that the government reserves the right to dispose of these estates as agricultural land, for roads and for other purposes which do not interfere with the work in the woods, and to concede them to a third party if such make application for them.

The concessionaries of woods must respect these grants, but will have a preferential right over other applicants if they apply for the land for agricultural purposes. The government reserves an option to alienate the land at any time to a third party in lots of no more than 2 1/2 hectares, the Secretariat giving notice to the concessionaries of the woods a year before the sale takes place.

The extent of the land which can be let in order that the wealth of woods may be realized is limited by the regulation to a maximum of 100,000 hectares, and the duration of a single contract and single concession cannot be more than ten years.

In order to secure the fulfillment of contracts, contractors are obliged to deposit in the State Treasury 100 pesos in bonds of the Consolidated National Debt for every 5,000 hectares or less of the area conceded.

A concessionary is also obliged to mark, within three years of the date of the contract and according to determined rules specified in the regulation, the boundaries of the land conceded.

These concessions may be made only to those who are Mexican citizens by birth or naturalization and to Mexican companies or societies. The government may subsequently extend enjoyment of them to foreigners if the latter first declare to the Secretariat of Foreign Relations that they wish to be considered Mexicans in respect of the properties conceded and to forego, where these are concerned, the protection of their governments, on pain of forfeiting the conceded properties to the State if they do not fulfil such obligations. The generic term "foreigner" does not however include foreign companies.

Proceedings referring to contracts of this kind are within the competence of the Secretariat's department for the management of forests and game and fisheries, and applications for concessions should be made to this department.

Besides these general provisions we have mentioned, the Secretariat of Agriculture is empowered to determine in individual cases the special conditions which it deems to be fitted to safeguard national interests.

These provisions obviously aim at encouraging the realization of woodland wealth which, as is well known, constitutes an important part of the products of the soil of Mexico. They have been in force since the 2nd of last March.

SWEDEN.

AGRICULTURAL WAGES IN 1916 — *Swedish Official Statistics: Agricultural Wages, a comparison of the ratio of labour-supply to needs, hours of work, wages in Swedish Agriculture in 1916, Stockholm, 1918.*

An official enquiry into the proportions of the labour-supply, the working hours and the wages in Swedish agriculture in 1916 was based on fairly detailed question-forms which were filled up by the chairmen of parish councils in 2,179 rural parishes, that is in 93.3 per cent. of the rural parishes covered by the enquiry.

The first question asked concerned the proportions of the labour supply in each rural parish; and was to be answered by a general estimate and information as to whether the agricultural labourers domiciled in a place or returning to it regularly ensured, when taken together, a supply of labour sufficient for the coming agricultural operations. The answer was to be expressed by one of the following words: "good", "sufficient", "insufficient". The material collected shows that in 58 of the communes which answered, that is 2.7 per cent. of them, the labour-supply was good; in 966 or 44.3 per cent. of them it was sufficient; and in 1,125 or 51.6 of them it was insufficient. Thirty or 1.4 per cent. of the communes declared themselves unable to answer the question precisely. As compared with those for the previous year the figures show a considerable reduction in the proportions of the labour supply, due to the fact that the needs of industry for labour had been much increased by circumstances attendant on the European war and had been filled only at the expense of agriculture. The harvest of 1916 required moreover an exceptional amount of work owing to the bad weather.

The proportions of the labour supply are different in different places. But the figures showing the number of parishes in the various departments in which labour is insufficient do not allow certain conclusions to be drawn as to the greater or less number of labourers existing in each of these departments in relation to the cultivated area. That which is above all reflected in these figures is the greater or less progress of agricultural organization in the various districts, and in particular the greater or less aptitude of employers for reducing labour by employing machines and means of transport, and for managing with the labour which is available by generally economical farming.

The indications as to hours and division of labour concern only the working day in agriculture properly so called, that is to say field-work and work in barns and on threshing-floors etc; and do not apply to the men employed to look after live stock who have a considerably longer working-day mainly passed in byres and stables. Moreover in the case of agricultural labourers properly so called the figures in the report apply only to the duration of work in the summer, that is to say the three summer months in

which work generally begins earliest and ends latest. As the days shorten working hours lessen in agriculture, and thus the working day is several hours shorter in winter than in summer.

On an average and in the whole country the gross time for which work is done, that is the time including intervals for rest, on a summer day is 12.3 hours; and since the intervals last for 2.2 hours the net working time is 10.1 hours. During the six years in which agricultural labourers have been a subject of enquiry no changes in these conditions have been noted, for they depend on the whole organization of labour in agriculture and are therefore fairly constant.

Duration and division of labour differ appreciably in the different parts of the country. If the net working time be principally considered there are seen to be in Sweden two zones where it is respectively less than and equal to the average ascertained for the whole country. It is less than such average in the two departments of Skåne; and is equal to it in a large district in the Swedish midlands embracing on its extreme north the departments of Värmland and Kopparberg and on its extreme south the department of Östergötland. The other parts of the country have comparatively long working hours.

The report is intended only to give a general view of the agricultural labour market for the whole country, and therefore takes into account only conditions common to all agriculture, leaving on one side the differences which the various regions present in this respect. Therefore figures showing wages have been noted only for a few of the more important groups of labourers who are found over the country's whole area or at least over its larger part. The enquiry was moreover based only on general averages and not on individual data, and it was therefore not deemed fit to include exact rates of wages except in the case of the least skilled and least well paid labourers, that is those whose wages are usually fixed by local custom, as distinct from the specialized labourers and the overseers whose payment is proportionate to their personal capacity.

The prices customarily paid for labour within these limited categories differ widely with districts. In the country as a whole, however, conditions are as follows: for the labour most important to agriculture on a small scale, that of unmarried men, payment consists of annual cash wages and board and lodging. The amount of these various forms of payment varies largely with districts; but on an average and in the whole country the annual wages of a general labourer of this description are 398 crowns; his food is valued at 508 crowns, and therefore his whole earnings are 906 crowns a year. The corresponding average wages of a woman farm-servant are 241 and 414 crowns, totalling 655 crowns. Especially in Norrland clothes are also given and they sometimes are of a sufficiently high value.

The class of labourers, usually married, who are known as *statare* (agricultural labourers receiving mixed wages) and work on the large properties of the agricultural districts properly so called, receive in addition to their annual wages, averaging 390 crowns a year, a payment in kind called *stat* which consists of milk, corn, potatoes etc., and are moreover lodged with

their families, so that their total earnings reach on an average 987 crowns a year. This figure includes the value of free lodging, which in South Sweden generally consists of two rooms and a kitchen but in the rest of the country of one room only, and of which the use is valued at 70 crowns. All these data apply only to ordinary ploughmen: agricultural labourers receiving mixed wages who have charge of stock usually receive higher cash wages and sometimes more considerable wages in kind, so that their annual earnings are estimated as 1,047 crowns.

Side by side with these labourers there are journeymen in permanent employment who are never or hardly ever paid in kind and whose daily wages vary very much with districts. They amount on an average to 3.28 crowns in summer and 2.55 crowns in winter but are less by 0.98 crowns and 0.86 crowns, respectively, if the labourer is fed by his employer.

Besides these journeymen who are usually engaged to work for a year or at least six months for one employer, there are agricultural labourers who undertake work now for one and now for another according to the needs of the moment. In summer the daily wages of these casual journeymen average 3.77 crowns, in winter 3.02 crowns, if they feed at their own expense. If their employer feeds them they receive on an average 2.63 crowns in summer and 1.96 crowns in winter.

Among labourers paid by the day there are also a large number of women employed to help in the cultivation of beetroot and potatoes, in the hay and corn harvests, etc. They receive on an average 2.05 crowns in summer, or 1.39 crowns with food, if they are considered to belong to the permanent staff of a farm. If they give only occasional help their summer wages are a little higher, that is, on an average for the whole country, 2.23 crowns without food and 1.52 crowns with food. In the winter months their wages are appreciably less as are those of the men in the corresponding category.

If we consider as a whole the increase in the wages of the chief groups of agricultural labourers during the present crisis, we find that from 1913 to 1916 the total payments to farm servants and labourers receiving mixed wages increased by about 35 per cent. This fact depends however first of all on the important increase of payments in kind, the increase of wages in cash having been only about 20 per cent. In the case of journeymen daily wages have increased by from 26 to 38 per cent., the increase being greater for winter than for summer days and for men than for women. The general increase in wages between 1913 and 1916 has been estimated as one of 30 or 35 per cent.

This increase of wages occurred chiefly between 1915 and 1916, except in the case of the labourers receiving mixed wages, whose payments in kind increased notably in value at an earlier date because of the general rise of prices. Between 1915 and 1916 the increase was particularly marked in the case of journeymen, especially as regarded the mens' daily earnings in winter, owing to the competition of forestry with agriculture. The rise in the wages of all the groups of labourers in 1916 only may be estimated as one of about 20 per cent.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Fifty-eight governments are now adherent to the Institute.

The Institute is a government institution in which each country is represented by delegates. It is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance, and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilising for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown (100 heller) (Austria-Hungary)	=	10d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1s. 1 ¹ / ₂ d.	at par
1 Deciatine (2 tchetwert) (Russia)	=	2.69960	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ²³ / ₆₄ d.	at par
1 Dollar, gold, (\$) (100 cents) (United States)	=	4s. 5 ¹ / ₁₆ d.	at par
1 Drachm, gold, (100 lepta) (Greece)	=	9 ³³ / ₆₄ d	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1s. 7 ⁵³ / ₆₄ d.	at par
1 Franc (100 centimes) (France)	=	9 ³³ / ₆₄ d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold, (100 bani) (Rumania)	=	9 ²³ / ₆₄ d.	at par
1 Len (100 statinki) (Bulgaria)	=	9 ³³ / ₆₄ d.	at par
1 Lira (100 centesimi, Italy)	=	9 ³³ / ₆₄ d	at par
1 Litre	=	0.21998	gallons
	=	0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ d.	at par
1 Mark (100 penni) (Finland)	=	9 ³³ / ₆₄ d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold, (Brazil)	=	2s. 2 ⁶¹ / ₆₄ d.	at par
1 Milreis, gold, (Portugal)	=	4s. 5 ²⁹ / ₆₄ d.	at par
1 Peseta, gold, (100 céntimos) (Spain)	=	9 ³³ / ₆₄ d.	at par
1 Peso, gold, (100 centavos) (Argentina)	=	3s. 11 ³⁷ / ₆₄ d.	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18s. 0 ¹⁵ / ₆₄ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold, (100 kopeks) (Russia)	=	2s. 1 ³ / ₈ d.	at par
1 Rupee, silver, (16 annas) (British India)	=	1s. 6d.	at par
1 Talari (20 piastres) (Egypt)	=	4s. 1 ¹¹ / ₃₂ d.	at par
1 Verst (Russia)	=	1156.64479	yards
1 Yen, gold, (2 fun or 100 sen) (Japan)	=	2s. 0 ³⁷ / ₆₄ d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

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Part I: Co-operation and Association

UNITED STATES.

THE POSITION OF AGRICULTURAL CO-OPERATION
IN CALIFORNIA IN 1917.

OFFICIAL SOURCE:

SECOND ANNUAL REPORT OF THE STATE MARKET DIRECTOR OF CALIFORNIA FOR THE
YEAR ENDING DECEMBER 1, 1917. Sacramento, 1918.

The increasingly marked activity of the State Market Director of California, as it affects co-operative organization in this State and is exercised in virtue of article 3 of the Act of 10 June 1915, amended on 1 June 1917, has obtained the happiest results. It has allowed the constitution of important co-operative societies, even of a federation of co-operative marketing societies, and has thus made it possible to control the price of produce and to ensure a maximum price to producers, who have especially benefited by a lessening of the disastrous consequences of slumps and by an elimination of middlemen.

We will briefly examine the position of the principal associations of this kind which maintain relations with the Markets Bureau.

§ 1. BUSINESS OF THE PRINCIPAL CO-OPERATIVE MARKETING
ASSOCIATIONS IN 1917.

The following are the leading marketing associations of California :

1) *Citrus fruits*. — California Fruit Growers' Exchange, Los Angeles ; Mutual Orange Distributors, Redlands.

2) *Deciduous fruits*. — California Fruit Exchange, Sacramento ; Central California Berry Growers' Association, San Francisco ; California Pear Growers' Association, Martinez ; Sebastopol Apple Growers' Union, Sebastopol ; Vacaville Fruit Growers' Association, Vaccaville ; Watsonville Apple Distributors, Watsonville.

3) *Dried fruits*. — California Associated Raisin Company, Fresno ; California Peach Growers Fresno ; California Prune and Apricot Growers, San Jose.

4) *Dairy Products*. — Associated Dairymen of California, Sacramento ; Associated Milk Producers, San Francisco ; California Milk Producers' Association, Los Angeles ; Milk Producers' Association of Central California, Oakland ; Milk Pooling Association of San Diego County, San Diego ; Northern California Milk Producers' Association, Sacramento ; San Joaquin Valley Milk Producers' Association, Fresno.

5) *Nuts*. — California Almond Growers' Exchange, San Francisco ; California Walnut Growers' Association, Los Angeles.

6) *Poultry*. — Poultry Producers of Central California, San Francisco ; Poultry Producers of Southern California, Los Angeles.

7) *Miscellaneous*. — California Associated Olive Growers, San Francisco ; California State Beekeepers' Association, Modesto ; California Lima Bean Growers' Association, Oxnard ; Escondido Vegetable Growers' Association, Escondido ; Lima Bean Growers' Association, Sacramento ; Thermal Cantaloupe Growers' Union, Thermal ; Turlock Merchants and Growers, Turlock.

The following are some data as to certain of the associations in these various groups :

California Pear Growers' Association. — The formation of this association was first mooted in 1916 when the chaotic state of the pear growing industry and the discouragement of the growers were evident. A temporary organization was rapidly formed in 1917 and eventually incorporated. By collective action the shortage of material for boxes was overcome, new markets were developed, and 4,700 carloads of fruit were sent out of the State and sold at an aggregate price to growers which exceeded by about \$100,000 that offered by canneries. It is calculated that from these consignments a net profit of between \$50 and \$60 a ton was realized instead of the previous net profit of \$30. The area on which pears are grown in California is estimated as actually 17,000 acres and prospectively 24,000 acres more. Instead of marketing 65,000 tons of pears a year as now the growers will have eventually to find markets for about 165,000 tons, and for this organized effort will be necessary. The fortunate results of the association's first year of business will undoubtedly have facilitated recruiting this year.

The Central California Berry Growers' Association. — Complaints had long been made by berry growers in various districts that the existing method of marketing their produce, namely by selling it on commission, was confused and unprofitable. Often the grower received no returns on his labour and capital. After a number of conferences had been held it

was decided that the growers should organize in a corporation which should not aim at making profits.

This association announced in July 1917 that its first year of activity has been a success. It dealt with a record crop of strawberries, consigned on an average about 1500 chests a day during the season, and secured a price higher by from \$1 to \$1.50 a chest than that obtained when sales were made on commission. More than 50,000 chests were marketed in thirty days. It was calculated that without the association at least half the crop would have sold at less than the cost of production. Meanwhile the consumer in San Francisco paid the same price as in 1916. The growers' increased profit was due to the removal of the speculative margin.

The association is managed by a board of eleven directors on which the State Market Director is represented.

The fruit marketed by the association in 1917, including fruit sold to canneries, filled 112,102 chests, and the average price secured was about \$6 a chest. Costs were about 5 cents a chest or less than 1 per cent.

The association's membership extends to six counties and represents about 80 per cent. of the land which supplies San Francisco with strawberries.

The growers of other berries than strawberries have requested to be admitted to membership of the association and both new and old members are signing contracts binding them to deliver their fruit to the association for three years.

The association has an interesting programme. "We must", states its president, "send inspectors all over our districts and educate our growers to the value of better berries for better markets, and to dump the poor stuff directly to the cannery. We must seek markets outside of San Francisco and of Oakland, and we must establish stations to pre-cool and ship berries out of this State.... We must establish branches in the leading towns of Central California".

In 1917 more than 500 acres were planted with strawberries, and it was estimated that several hundred of these acres would bear fully this year.

California Prune and Apricot Growers. — The success of this association was still problematical at the end of 1916 but at the end of 1917 the association had come to be one of the most important ever organized in California. It unites about 5,000 growers, has a paid-up capital of nearly a million dollars, and handled in 1917 about 110,000,000 pounds of prunes and 13,000,000 pounds of apricots out of a total production estimated at 190,000,000 pounds of prunes and 20,000,000 pounds of apricots.

For its sales in 1917 it utilized to some extent the existing machinery of distribution, for its organization was not perfected until after the time at which eastern buyers contract for their year's supplies. Arrangements were therefore made between the association and about forty individual packers whereby the latter did the packing on contract and in return sold on commission. It is the intention of the association to have its own packing houses in the future and do its own selling. Selling prices have been fixed on a basis which will allow differentiation for kinds and qualities of fruit.

In 1917 the California Prune and Apricot Growers handled less than 75 per cent. of the dried prunes and apricots produced in the State, but a considerable number of growers, members of the association, contracted to deliver to it their fruit for four years to come. The association was therefore assured of an increased control of the production of the coming season even without any increase of its membership.

California Peach Growers.—This association has, within some two years, rescued the peach grower from insolvency and placed his industry on a sound basis. About 50,000 acres in California are planted with such peaches as are commonly dried and the association has a five years' contract over 45,750 acres. As regards its capital stock, it has a total subscription of \$848,185 of which sum it has received about \$340,000 in cash. It has received notes for and has in hand more than \$475,000 on account for subscriptions of capital stock. About \$30,000 of the stock subscriptions have neither been paid for in cash nor secured by notes.

In 1916 it sold directly to the eastern trade and consigned slightly more than 7,500 tons. On 20 September 1917 its direct sales of the crop of 1917 amounted to 7,600 tons, and it was anticipated that before the end of the year they would amount to 10,000 tons.

On the other hand from a third to a half of the Californian peach crop was not even harvested because the packers did not offer the growers a price equal to the cost of production. The consumer was then paying on an average 17 cents a pound for dried peaches while the grower was receiving from 2 $\frac{1}{2}$ to 3 cents.

In 1914 growers made a net profit of less than 3 cents a pound on dried peaches. In 1916 they produced 30,000 tons while nearly 10,000 tons were carried over from 1915. The new association handled the crops of both years and secured for growers a net profit of \$ 5.26 a hundredweight. The crop of 1917 was the largest ever produced and it was practically all sold before the end of the year on terms which gave the growers a net profit of 8 cents a pound or more.

Associated Dairymen of California.—The year 1917 was a critical one for the great dairy industry of California. Investigations into the cost of producing milk before America's entry into the war showed that even then dairymen were receiving less for their milk than it cost them. The State Market Director brought about in the San Francisco district in 1916 an arrangement between producers and distributors which would have solved the problem had not war conditions supervened. But with America's declaration of war came a rise in the price of hay and grain and in wages, and dairy-farmers realized that State-wide organization and collective marketing had become necessary for them. The initial step was taken by the Associated Milk Producers who supplied San Francisco and other cities in the bay with fresh milk. This association's success led dairymen in other large centres of production to apply to the State Market Director for aid in organizing themselves, and he was able to bring to life a large number of dairy associations. Five of them have federated for joint marketing as the Associated Dairymen of California. These five are the Associate Milk

Producers, San Francisco, incorporated in May 1916; the Northern California Milk Producers' Association, Sacramento, organized in May 1917; the San Joaquin Valley Milk Producers, Fresno, organized in May 1917; the Milk Producers' Association of Central California, Oakland, organized in April 1917; and the California Milk Producers' Association, incorporated in June 1915. These five important associations are the nucleus of the Associated Dairymen of California incorporated in August 1917 as an association not aiming at profits. Each unit composing it retains its individual and corporate identity and will continue itself to market its whole milk and fresh cream although its other products will be marketed by the central organization. The formation is contemplated of three additional organizations to include respectively San Diego and the Imperial counties, Humboldt and the other northern counties, and the district stretching from Monterey to Ventura. The Associated Dairymen, although still a new organization, has a membership of about 2,000 persons.

Associated Milk Producers.—Three attempts to organize this association failed, but early in 1916 its successful organization was accomplished with the help of the State Market Director. It was the first of several large associations of dairymen which were formed in order scientifically to secure for the producer a price which would bear a ratio to the cost of production. It sells most of its milk in San Francisco and other cities of the bay and uses only its surplus to manufacture butter and cheese.

Its members are dairymen producing milk in counties near San Francisco. Their number has increased since 1 January 1917 by about 30 per cent. and is now 185. They own about 20,000 cows of which the milk for two years is sold to the association, which in its turn sells it to the distributors.

The association supplies the following percentages of the total amount of milk consumed in the cities named:

San Francisco	80 per cent.
Oakland	7
San Jose	60
San Mateo	75 "
Redwood City	15 " "

The association has been instrumental in securing an increased price per gallon for its members' milk. In April 1917 it signed contracts with the majority of the milk distributors of San Francisco whereby the latter agreed to buy and the association to sell to them all the milk they used at prices to be fixed by a Board of Arbitration which should consist of three distributors and three producers and investigate the cost of production and distribution, respectively. The board settled that the association should in June, July and August 1917 pay $17\frac{3}{4}$ cents a gallon to producers and receive 19 cents a gallon from distributors for milk containing 3.7 per cent.

5f butter fat. For the three subsequent months the price paid to producers for milk containing 3.6 per cent. of butter was fixed at 23 $\frac{3}{4}$ cents a gallon and that received from distributors at 25 cents a gallon. The association therefore works on the margin of 1 $\frac{1}{4}$ cents a gallon, out of which it pays working expenses and a dividend of 5 per cent. on the capital stock which is owned exclusively by the dairymen members in proportion to the quantity of milk they contract to supply. Any balance is distributed among these members in proportion to the quantity they have supplied; and for June, July and August they thus received $\frac{1}{2}$ cent a gallon on their milk, the association's costs reaching only the very low level of 3 $\frac{1}{8}$ per cent.

Poultry Producers of Central California. — This association was incorporated in October 1916 after a remarkably successful campaign of propaganda. It then comprised the owners of more than a million hens in the central part of the State. Of the many plans for marketing the eggs submitted to the Board of Directors the following was selected.

The association's eggs were distributed daily among all the wholesale dealers in proportion to the number they handled in the previous year. The price was determined daily by the usual practice of the Produce Exchange. The association was represented on the floor of the exchange and has a voice in determining the price. Dealers paid to the association as much as any poultryman not a member of the association.

For a newly formed association this plan has appreciable advantages. It allows all the eggs shipped by members to be sold in advance for the whole year without the services of sales experts; it allows the poultryman to be protected against possible manipulation of prices by the association's representative on the exchange; and it obviates the necessity of maintaining expensive buying stations in the poultry districts. The drawbacks to it are that it gives over the eggs to the regular wholesale dealers whom the poultrymen had generally regarded as speculators; and that its benefits are shared by poultrymen outside the association who contribute nothing to the organization, as much as by members.

In spite of these weaknesses and war conditions the association achieved excellent results in its first year. On 1 November 1917 its paid-up capital stock amounted to \$64,699; and it had sold since 29 January 174,726 cases of eggs for the total sum of \$1,755,822. Working costs amounted to \$40,953 or 2.33 per cent. The sales commission of 2 cents per dozen eggs had brought in \$104,847.

The association has now sufficient capital to do its own marketing, and its board of directors decided that it would sell its own eggs in 1918.

Poultry Producers of Southern California. — This association was incorporated in December 1916. Since its resources were limited it sold its eggs in 1917 by the medium of a brokerage firm with which it shared profits. On 25 October 1917 its capital stock amounted only to \$6,010. Its 523 stockholders held 601 shares. It deducted, in order to cover expenses, 3 cents from the price due for every dozen eggs it handled, and therefore offered less advantageous terms to producers than the association in Cen-

tral California. Its paid-up capital on 25 October 1917 was hardly equal to a tenth of that of the latter association.

California Associated Olive Growers. — This association was organized in 1916 and unites about 190 olive growers who represent about 1200 acres of the best olive groves in California. In 1917 it erected two plants for treating olives which are entirely modern as regards their construction and equipment and their provision for the comfort of employees.

Pacific Rice Growers' Association. — The first association to have this name was organized at Biggs in 1915 but was local in character and represented only a fraction of the acreage under rice. In order to arrive at a stronger association a conference of rice growers met in June 1916 and constituted a committee for reorganization along broader lines. The consequent association has the following chief aims:

- a) A more scientific method of production, made necessary by the fact that much inferior rice has been marketed;
- b) A proper system of grading and standardizing which will allow purchasers to buy safely;
- c) Federal legislation to protect this industry;
- d) National advertisement;
- e) The promotion of a co-operative spirit among the various racial groups producing Californian rice;
- f) Scientific collective marketing.

The association's membership includes about 225 of the leading rice growers of the State, who were estimated to have produced in 1917 about 1,500,000 bags of rice out of the total yield of 2,500,000.

The California Bean Growers' Association. — The formation of this association was still in course in December 1917. It was to be a non-profit organization which should have fifteen directors chosen from the counties of San Joaquin, Sacramento, Sutter, Colusa, Yuba, Yolo, Solano, Stanislaus, Merced and Fresno. A director from any other county producing beans might eventually be admitted. The interest and voting power of each director was to be proportionate to the tonnage of beans produced in the county he represented. A crop sales agreement was to cover the period from 1918 to 1920 and provide that the management might make a maximum charge of \$1 a ton for selling costs and other expenses, using any surplus for general purposes or refunding it to growers in proportion to the tonnage they had supplied. The association would provide both rules and inspectors with the object of standardizing the quality of beans and the method of picking, cleaning and consigning them. The growers were to contract to pay to the association one cent per pound for the beans they marketed without its intervention.

Since California's normal production of beans is between three and five million bags this association has a wide field.

California Honey Producers' Exchange. — At the end of December 1917 a conference of beekeepers decided upon the formation of this association and appointed an organizing committee. The value of the honey produced in California is more than three million dollars.

§ 2. THE CALIFORNIA FEDERATION OF FARMERS' CO-OPERATIVE MARKETING ASSOCIATIONS.

A great step forward in the matter of marketing Californian products was realized when this federation was formed in 1917.

The constitution of the federation was drafted in April and completed in October with the help of the State Market Director. The following associations signed the agreement :

Name	Annual value of output	Number of votes	Fee
	\$		\$
California Peach Growers	,000,000	10	1,666.66
California Associated Raisin Co. . .	11,000,000	20	3,666.66
California Prune and Apricot Growers	8,000,000	16	2,666.66
Poultry Producers of Central California	1,800,000	4	600.—
„ „ „ Southern „	751,000	2	250.33
California Associated Olive Growers	350,000	1	116.66
Central California Berry Growers .	500,000	1	166.66
Sebastopol Apple Growers.	400,000	1	133.33
Associated Dairymen of California .	—	—	—

The agreement comprises the by-laws of the federation which aims at securing that the federated associations co-operate wherever their common interests are involved, interchange their ideas and experiences, secure collectively data as to forms of organization and the restrictions which may be placed on co-operative marketing, organize marketing scientifically with a view to increasing demand and finding new markets outside California, organize the collective purchase and production of material and other requisites for all or some societies, organize the transport of produce, find on good terms the credit needed by the societies, set up and maintain a labour bureau, etc.

At general meetings of the federation each federated association has one vote for each \$500,000 or major fraction of such value of farm products which it handled in the previous year. Figures are based on prices realized at f. o. b. sales point, California, confirmed and made binding by the federation's executive council. No association may have less than one or more than twenty votes in the federation.

The executive council is composed of the federation's chairman and secretary, a person selected by and holding office at the pleasure of the State Market Director, and four persons annually elected by the federation's September meeting. This council initiates and carries out plans accordant

with the federation's purposes, subject to the approval and instructions of the general meeting.

Associations admitted to membership pay as fee one thirtieth of the value of the products they handle each year, but no one of them may pay an annual fee less than \$100 or more than \$5,000.

The active work of the federation is carried on by seven circles, each of which is composed of from three to seven persons selected by the chairman from the delegates, officers, directors or employees of the federated associations. The said circles cover the fields of :

- 1) Domestic markets and advertisement,
- 2) Markets outside California,
- 3) Legislation,
- 4) Tariffs and problems of transport,
- 5) Co-operative purchase,
- 6) Labour,
- 7) Finance and credit.

The executive council's secretary is secretary *ex officio* of each circle and the chairman a member of each circle.

Each circle must make a plan or plans for solving any or all of the problems arising within its field ; and must prepare a scheme in contract form for presentation to the federated associations, for whom this scheme becomes binding if they accept it in writing. The federation as a whole cannot be bound by any activities of the circle, without the unanimous vote of the executive council and of the general meeting. The number of the circles may be enlarged. .

Any federated association may withdraw from the federation if it give notice to the executive council's secretary at least 30 days before the September meeting in any year. Such resignation becomes effective from the following 31st of October.

The federation must meet at least four times a year, in March, June, September and December ; the executive council at least once a month ; each circle as often as it may determine.

The federation's agreement, as signed by the federated associations, is binding for ten years.

The list of signatories to the agreement does not represent the federation's full strength, for many associations in full sympathy with the movement have not yet signed.

In December 1917 the whole organization was still provisional.

ITALY.

CELLAR SOCIETIES

SOURCES:

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- CANTINA COOPERATIVA DI SAN SALVATORE MONFERRATO (*Co-operative Cellar of San Salvatore Monferrato*). By-laws and rules. Casale, Stab. Arti Grafiche, 1916.
- ASSOCIAZIONE ITALIANA DELLE CANTINE SOCIALI (*Italian Association of Cellars Societies*). By-laws, Novara, Stab. tip. di G. Pranzini, 1918.

§ 1. THE CHARACTERISTICS OF CELLAR SOCIETIES AND THE DIFFICULTIES OF CONSTITUTING AND WORKING THEM.

The societies for cellars were founded with the object of bringing together the grapes of their individual members, making them into wine of one kind, and selling this as well as possible. They are not common in Italy, numbering only 170 (1), of which 35 are in the province of Alexandria, 15 in that of Pavia, 14 in that of Cuneo and 11 in that of Rome. For the most part they take the form of limited liability co-operative societies or civil societies. They provide for the marketing of their product, sometimes uniting with the consumers' co-operative societies in the large towns, sometimes themselves opening shops in centres of consumption or entrusting the sale to a specially commissioned agent. They generally procure the capital they need for purposes of management from the shares of members or from local institutions of popular credit.

The viticultural crisis of 1903-1904 and the law of 11 July 1904, No. 377, gave a special impulse to the constitution of cellar societies. This law

(1) See *Elenco delle società cooperative e mutue agrarie esistenti in Italia al 31 dicembre 1916. Confederazione Generale delle Cooperative e Mutue Agrarie Italiane*. Rome, Tip. Panetto e Petrelli, 1917.

authorized, with a view to encouraging the vintners' industry in centres which were most depressed, the expenditure of a million liras, of which sum 300,000 liras were for the acquisition of wine vats to be lent in the wine-making season of 1904 to small producers in communes in which the need was most urgent; and 700,000 liras were intended to encourage the foundation of cellar societies and associations of producers for the sale of their wines in provinces in which cellar societies were most lacking and which were suffering most from the crisis. The wine vats lent were afterwards to be ceded to the cellar societies as parts of premiums. Altogether 58 applications for subsidies were then made, and 41 of these, for a total sum of 243,000 liras were accepted, namely 36 from cellar societies and 5 from associations of wine producers. Of these 41 there were 16 which were limited liability co-operative societies, 13 were civil societies, 6 were co-operative societies collective in name, and one was a co-operative joint stock society. In order to encourage the production of wine of an unvarying type other subsidies and premiums were successively granted to the cellar societies by the special commission established at the Ministry of Agriculture. But, as we have noted, these societies none the less developed with a slowness which has been variously explained by students of co-operation. Thus Valenti (1) blames the grave difficulties in the way of constituting the societies, resuming them in the statement that the vintners' industry in modern conditions asks for a large equipment and working capital and unusual managing ability. "It is an industry which has an eminently scientific basis and to which should be applied the most delicate processes not only of mechanics and physics but also of chemistry and bacteriology. These difficulties account for the very limited application of the co-operative principle in the field of the winemaking industry, although the need of co-operation is there felt even more than elsewhere".

According to Niccoli (2) two other difficulties, which impede the institution and working of co-operative societies, have been added to that of finding the capital needed for expenses of installation. This latter difficulty is found in the case of these societies much as in that of collective dairies (3).

The first of the additional difficulties is connected with the very complex problem of making a fair valuation, which fully satisfies members, of the primary material pooled. The author we have cited observes that when collective dairies have once ascertained that milk is genuine its valuation proceeds uniformly on the basis of the number of kilogrammes received. By common consent no account is taken of the varying amount of butter-fat and other profitable substances it contains, for in this respect the limits of the variation of natural milk in one season are not far distant from each other. But in the case of grapes there is much diversity: grapes vary with the vines whence they are derived, the constitution, lie and ex-

(1) GRINO VALENTI: *Cooperazione rurale*. Florence, Barbèra, 1914.

(2) V. NICCOLI: *Cooperative rurale*. Milan, Hoepli, 1909

(3) For collective dairies in Italy see the article in our issue for April 1917.

posure of vineyards, the method of cultivation, the more or less effective protection against pests, the degree of ripeness; and therefore a valuation of grapes based only on weight and measure is quite impossible and no scientific and practical means of valuation which solves the problem of appraising their quality in a complete and generally satisfactory manner has been found.

The second specific difficulty encountered by cellar societies, as distinguished from dairy societies, is, according to Niccoli, the greater time needed to handle and convert the product with which they deal. In consequence of this members receive the value of the converted product less frequently, and therefore the profit actually made and the net benefit derived by the society have to be estimated much later and much less rigorously than in the case of dairy societies.

More recently Mondini (1), in trying to explain the slight development of cellar societies in Italy, noticed that in general the spirit of association makes itself little felt among vinegrowers. "Their individualism goes to excess. In every vinegrower the conviction is rooted that his vineyard is the best cultivated, that his grapes are the best, that his wine need fear no comparison. This conviction makes it very difficult for him to separate his personality from the product he has obtained, and this is the chief obstacle—one all the stronger because it is unacknowledged—against which those who undertake a propaganda in favour of cellar societies must struggle. In spite of all the advantages of work in common the suspicion remains in the mind of the grower that a co-operative society would oblige him to forego for the sake of others profits which belong to him exclusively. He renounces his individual initiative only if he do not succeed in obtaining something, if only a little, more from his crop than the expenses he incurred for its sake. The cellar societies in Italy are influenced by this state of mind of the viticulturists".

The following paragraphs will show however that in Piedmont and Lombardy there are some good specimens of these societies. There are some also in Oltrepò Pavese, and one or two are found here and there in Central Italy, as in Frascati, Albano, Marino and Castelgandolfo, and in Sicily. These Societies show that the difficulties to which we have alluded have in certain cases been happily overcome or alleviated.

§ 2. THE CELLAR SOCIETIES OF OLTREPÒ PAVESE.

These are among the best organized societies of their kind and those which work best. The first of them, that of Montubeccaria (Pavia) was founded in 1902 when it united 225 members and made 4100 quintals of grapes into wine. Today it has about 400 members, mostly smallholders. Wine casks belonging to members were not collected at its institution, as

(1) SALVATORE MONDINI: *Industria enologica. Produzione; Commercio; Regime doganale Comitato Nazionale per le tariffe doganali e per i trattati di commercio. Ufficio tecnico per l'agricoltura e le industrie agrarie. Monografia 1^a. Rome, Bertero, 1916.*

in other cases ; but it acquired *ad hoc* plant of an industrial type together with machines and implements at an initial cost of 190,000 liras, afterwards increased by degrees to 200,000 liras. The society's factory, machinery and goods have been entirely freed from mortgage. Members, have not acquired shares. They paid in the first year 1.50 liras the quintal, or a little less than the sum given to ordinary middlemen, and they became collectively liable for the capital to be obtained from the *Banca Popolare* of Stradella and the savings bank of Voghera.

This society developed so quickly that in 1908 it was working 12 000 quintals of grapes and had 385 members. At present, owing to the phylloxera crisis, by which the productiveness of the vineyards of the district has been diminished by one half, the work has lessened. Last year about 4,500 quintals were worked, this year about 6,500 quintals worth 430,000 liras. In 1916-1917 the 3,460 quintals of wine produced were sold by means of the federation to which we have already alluded, the price being 80 and 100 liras the hectolitre ; and since, as already stated, costs of installation had been entirely redeemed, almost all the receipts, less costs, could be distributed among the members, who thus received for their grapes prices higher than the average market prices, that is the minimum they received was 46 liras and the maximum 52 liras a quintal. In valuing grapes not only their weight and sugar-content are taken into account but also the vines and land and the position and exposure of the vineyards whence they are derived.

Lately the members of this cellar society had the happy idea of constituting a Mutual Aid Hail Society which aims at helping members who incur loss from hail. To belong to this society a member must annually pay in August a sum proportionate to the quantity of grapes he has contributed in the previous year, and the rate at which this sum is paid is fixed annually at a meeting, according to the value of the grapes. Its payment is ensured by the cellar society which effects it by means of a detention of sums due to the member concerned. The capital of the hail society is made up of these payments and of any gifts, legacies and subsidies it may receive from individuals or corporations. Such capital may be used, if necessary, to finance the cellar society.

Payments to members suffering loss by hail will begin in 1920 and continue in subsequent years, and will be regulated by special rules. Only those falls of hail will be taken into account which have inflicted a loss of more than 10 per cent. and have attacked vines of which the grapes have been delivered to the cellar society at least once in the five years preceding the fall. The losses will be estimated by a committee of three, namely the technical manager and two expert members of the cellar society, the latter elected by the council from a list of seven names chosen by the meeting of the previous year. This committee will visit the vineyard immediately after the fall ; the valuation will be expressed in terms of a percentage of the grape harvest ; and this percentage will then be applied to the annual average quantity of grapes which has in the previous five years been delivered to the cellar society from the vineyard damaged.

In the five years from 1920 to 1924 it will be forbidden to assign to these payments more than a quarter of the society's fund as shown on 31 December of the previous year, and the subsidy payable to members who have suffered loss cannot in any case exceed 20 liras a quintal. In every succeeding quinquennial period the part of the society's fund which can thus be assigned and the maximum subsidy payable will be fixed by the members' meeting, taking into account the results obtained in the previous quinquennial period. With this meeting's authorization the council may devote a part of the available fund to reinsuring risks with other bodies.

To conclude: the constitution and working of the Cellar Society of Montubeccaria are such that it may be considered typical. The results to which it has attained are the more noteworthy because they were reached "without asking of the members other sacrifices than the payment of their modest initial fees, without renouncing in any year any due percentage, and without recourse to the odious system of fines which causes vinegrowers, in the present favourable conditions of the market, to send their grapes anywhere rather than to cellar societies" (1).

Two years after this society had been founded another of the same type, the Cellar Society of Santa Maria della Versa (Pavia), arose in a district not yet attacked by phylloxera, fully productive, and less cut up into small holdings than that of Montubeccaria. It was constituted as a civil society, has about 100 members and treats 15,000 quintals of grapes.

Then in 1905 other societies of this type arose: the Cellar Society of San Damiano al Colle, having 300 members and treating only 3,000 quintals of grapes because of phylloxera; that of Montescano with 250 members treating for the same reason only 1,000 quintals; and those of Scorzoletta and Canneto Pavesti. The two last named are dissolved. The others united in the Federation of Cellar Societies of Oltrepò Pavese which has its seat at Stradella and proposes: a) to improve the local production of wine and cause the local wine to be known in national markets abroad; b) to arrange for federal repositories where wines of standard kinds can be sold in large quantities, such kinds of wine being obtained by mixing the produce of the single societies; c) to facilitate the sale of the products of the federated societies; d) to provide for the utilization and sale of the by-products of grapes; e) to provide for the better management of all the federated societies, co-ordinating their action (Article 2 of the by-laws). For the purpose of the sale in common of wines of which there is a large consumption, every society whose territory has not been devastated by hail or phylloxera is bound to consign annually to the federation a number of hectolitres of wine proportionate to the admission fee it has paid. The wine thus consigned should be free from all disease and the manager has the option of rejecting wine not suitable for trade. The price of the wine is fixed by the federation's council, together with its technical manager and the managers of the individual societies, by taking a sample from every

(1) A. MARESCALCHI: *Cantine sociali che vanno bene*, in *L'Italia Vinicola ed Agraria*, No. 40. Casalmonteferrato, 6 October, 1912.

lot delivered and determining thence the sugar-content. A basic price is then fixed for particular wines containing a given degree of alcohol, the conditions of the market and the course of sales being taken into account. This price will be increased or diminished by 50 centimes the hectolitre for every degree of alcohol above or below that fixed as the standard. To the price thus obtained there is added the premium due to the wine's pleasing quality, which premium will be based on the results of the committee's sampling. The premium will never exceed 2 liras a hectolitre. To fix it each member of the committee will give it a mark between one and ten: five will represent the standard; and, every point above or below five will represent an increase or decrease of the premium by 20 centimes.

This federation has branches at Milan, Pavia, Piacenza, Vigevano, Genoa, Crema and elsewhere. In 1915-1916 it sold 108,487 hectolitres of wine, which quantity fell to 73,472 hectolitres in 1916-17; but the total receipts from sales were, owing to the high prices, larger in the latter. (1,122,077 liras) than in the former year (1,056,162 liras). The federation also made important sales abroad, in France and Switzerland, making its merchandise known in various markets in these countries. If expenses be deducted, and if the sum received be distributed among societies so as to give their members prices not less than the market prices for the grapes they contributed, it is found that the federation closed its eighth year — 16 July 1916 to 15 July 1917 — with a net profit of 14,285 liras. On 15 July 1917 the capital of the federation amounted to 90,977 liras and the reserve fund to 16,281 liras.

§ 3. THE MODENESE CELLAR SOCIETIES.

In the province of Modena there are eight cellar societies, installed by the local ambulant chair of agriculture. They have yielded the best results, especially as regards the improvement of winemaking technique. We will briefly explain the organization of one of them, the Intercommunal Co-operative Cellar Society of Cavezzo Medolla-San Prospero (1). It arose in 1911 and has 110 members and a lien over 5,325 quintals of grapes. Its object is "the treating in common of the grapes of members in order to make wine for the society's special cellar and sell it collectively". The right eventually to practise the industry of extracting alcohol and other enological or waste products of vintage is reserved. The society's capital is formed of the members' entrance fees, the reserve fund, special funds instituted for particular objects, etc.

Owners and tenants of rural holdings may belong to it if they pay an entrance fee of 25 liras, and state the smallest quantity of grapes which they undertake, unless *force majeure* intervene, to deliver annually at the society's request. This minimum must not be less than 25 quintals.

(1) See in this connection CELIO CORAZZINI: *Le cantine sociali cooperative* Catania, Battiato, 1913.

Grapes must be consigned in a whole and marketable condition, in chests or cases, at the society's headquarters and at the expense of the consigning members. The latter will sort them according to quality and kind, conforming to the special directions of the technical manager. A member wishing to deliver more than the minimum quantity he engaged to deliver must, no later than 31 August, notify this fact, stating the quantity and quality he wishes to deliver. The administrative council will accept or refuse his offer before 15 September. The provisional or standard price of the grapes consigned will be fixed by the council on the advice of the technical manager "taking into account all the coefficients, scientific and practical, which contribute to determining the price of grapes". On the grapes consigned by members the council may make, on their delivery, a payment on account not exceeding two thirds of their provisional or standard value. If a member be not satisfied with the price assigned to his grapes he may appeal to three arbiters, of whom one shall be chosen by himself, one by the president, and the third by these two. If these arbiters fail to agree he may appeal to the praetor. Arbiters thus chosen will decide all disputes between a member and the administration. The arbiters will decide on grounds of equity, without legal formality, and the members and the administration of the society respectively undertake to accept their decisions from which there is no appeal.

These cellar societies treated 9,628.88 quintals of grapes in 1916 and 14,500 in 1917.

We have the following data as to the other cellar societies in the province of Modena.

Cellar Society of	Year of foundation	Number of members	Grapes engaged	Grapes treated	
				in 1916	in 1917
			quintals	quintals	quintals
Carpi	1903	87	5,693	8,071.32	8,186.12
S. Croce (Carpi)	1907	108	—	11,642.46	16,524.7
Campogalliano (co-operative) . .	1908	—	—	13,290	13,709.68
Nonantola	1914	46	4,265	5,030	6,800
Soliera (co-operative)	1914	31	6,000	7,780	9,000
Mirandola	1902	32 permanent 60 temporary	8,000	8,000	9,600
Pioppa (Carpi).	1912	82	4,400	5,500	7,000

To conclude : 8 cellar societies flourish in the province of Modena and are formed by about 700 producers ; in 1917 they treated 85,320.50 quin-

tals of grapes, and wrought much benefit to local winemaking which had been somewhat primitive. Their capacity for joint action is proved by the Federation of the Modenese Cellar Societies which will indubitably strengthen a movement which has begun so well.

§ 4. CELLAR SOCIETIES IN PIEDMONT.

In Piedmont, which is a viticultural centre of the first importance, there are numerous and flourishing cellar societies. One of the oldest and most deserving of them is that of Oleggio (Novara) which was founded in 1891 and is a civil society. Its activity was developed in a very difficult period when the usefulness of co-operation as applied to winemaking was little known to the agricultural population and when such institutions were for the most part received with indifference or suspicion and had to work in the midst of the overt or concealed opposition of those who, on principle or from motives of interest, were in conflict with all which could change the normal course of affairs. A first attempt at co-operation of the kind had already been made in Oleggio soon after 1880, in the form of a cellar society having some fifteen members. It worked for several years, obtaining good results, and had to cease its activity only because peronospora, for which the remedies were not then known, had much imperilled the vines of the district, destroying almost the whole grape harvest.

The society reappeared in 1891, and became year by year more prosperous, increasing its membership and notably increasing its production; and it acquired legal form as a civil society on 29 May 1905 because it wished to have its part of the subsidies which the State had, as has been said, instituted for cellar societies by the law of 11 July 1904.

There are some hundred members of this cellar society, most of them small landowners and peasants. They belong not only to Oleggio and neighbouring villages but also to other villages within and without the province of Novara.

The object of the society is to collect the grapes of members and make therewith by scientific methods one or more qualities of a wine of a constant type, and to sell the wine in the common interest.

The quantity of grapes to be contributed by each member is optional and the society accepts grapes of any quality intended for winemaking if they are selected and are consigned to the society at the sending member's expense. The society reserves however the right to bear part of expenses of transport if the grapes come from a distance.

An excellent system is adopted for the valuation of the grapes. It takes into account a) weight; b) the degree of sugar-content as ascertained by the Babo glucometer; c) the price of grapes based on the average prices in the markets of Casale Monferrato, Asti and Oleggio; d) the quality of the grapes and situation of vineyards; e) the wine obtained in previous years from the grapes of the member concerned.

Every member may send to the cellar society the casks, vats,

machines and other winemaking equipment of his own holding, but the management has the right to accept or reject them in accordance with the interests of the association.

For the working of the society and making and storing of the wine the society has contracted loans with local institutions of credit. Since 1905-1906 however members have had annually to pay for these purposes a small fee for each quintal of grapes they have contributed.

The society owns ample and convenient premises in which are a variety of vats and cellars, many large casks, a chemical laboratory, store-houses and repositories, premises for despatching merchandise, cement basins, sheds for preparing grapes in vintage-time in case of rain, etc.

The arrangements for book-keeping are excellent and the administration most regular. Auditing and inspecting are therefore very easy.

Another remarkably successful cellar society is that of San Salvatore Monferrato in the province of Alexandria, which was founded in 1908 with a membership of 118, now risen to about 300. Its object is "the production in common and by a scientific method, on the society's own premises and with grapes derived from the lands of members, of wine of a constant type, and the sale of this wine".

The legal form of this society is that of a limited liability co-operative society having unlimited capital. The shares are of 20 liras each, are nominative and cannot be transferred or engaged without the consent of the administrative council. The society was founded exclusively for the benefit of the small proprietors: thus each member is obliged to contribute 10 quintals of grapes but no member's contribution may exceed 50 quintals, although a margin of one quintal is allowed when the grapes are being weighed. The administrative council may however authorize at the request of members a contribution of more than 50 quintals, and may similarly reduce this maximum of 50 quintals to suit the capacity of the vats. The other rules of the society are those of co-operative societies in general and of the civil code.

The society's procedure is as follows: The administrative council in agreement with the management first fixes every year, and announces in a public advertisement, the exact day on which the reception of grapes from members will begin. Members are obliged to notify the president in writing before 31 July of the approximate maximum quantity of grapes they intend to contribute to the society. The valuation of the grapes is made by means of a determination of their degree of sugar-content. The number of the degrees found for every 100 kilogrammes of must, multiplied by the number of quintals, gives the total number of the degrees of sugar-content in every lot of grapes. The price of each grade is provisionally established by the council on the basis of average prices as shewn by the inspected contracts which have been entered into in the commune and in neighbouring villages. The price of the grade is multiplied by the total number of degrees, and thus the extent to which each member is interested is discovered. The administrative council can also make advances to members which however bear interest at the rate of 5 per cent. Ac-

counts are usually settled after receipts from the last sale have been collected.

The following are some figures referring to various years. The membership, which was 118 in 1908, rose to 147 in 1909, 152 in 1910, 230 in 1913, 255 in 1916, and 280 in 1917. In 1913, 189 members contributed to the society 588,351 kilogrammes of grapes from which 9,175 brente (brenta = 50 litres) of wine were obtained. The sale of the wine brought in 75,709.55 liras; that of the dregs and other waste 1,937.90 liras. After expenses had been deducted 72,157.84 liras remained to be distributed to members. In 1916 the quantity of grapes consigned to the society was 495,480 kilogrammes. Thence 7,759.29 brente of wine were produced, that is one brenta for every 63.8 kilogrammes of grapes. The sale of the wine brought in 269,178.90 liras; that of dregs and other waste 2,980.65 liras. The 184 members who contributed grapes realized a price in excess of the current market price by more than 20 centimes a kilogramme of grapes. In 1917-18 the quantity of grapes consigned to the society was 570,460 kilogrammes which gave 8,810 brente of wine, that is a brenta for every 65 kilogrammes of grapes. This year the wine was sold by auction at 86.30 liras the hectolitre and the cost of middlemen was thus eliminated.

The Cellar Society of San Salvatore Monferrato employs a secretary-book-keeper. For the vintage an expert is employed, and technical advice is obtained from the ambulant chair of agriculture of Alexandria or the expert of the Society of Italian Viticulturists of Casale Monferrato. The society's capital, which is paid up, is relatively small; and this proves that even with a small capital an important cellar society can be installed and worked if it be well administered and if, above all, its members be inspired by a healthy spirit of co-operation.

§ 5. THE ITALIAN ASSOCIATION OF CELLAR SOCIETIES.

Of late years some federations of cellar societies have arisen. We have already noticed the federation of Piedmontese societies and of the societies of Oltrepò Pavese, the Modenese, Cimino and the Roman province. An organization which would unite in one body all the cellar societies in the kingdom, act as their general representative, co-ordinate their activities and guard their interests was however lacking. In order to satisfy this need the Society of Italian Viticulturists took at the end of 1910 the initiative in constituting a federation among all cellar societies in Italy and drew up a scheme for them. But this action (1) had no sequel. Recently however the *Associazione Italiana delle Cantine Sociali* was constituted at Novara. Its objects are: 1) to watch over the development and progress of the winemaking industry in general and the associated cellar societies in particular, strengthening the ties and relations which exist among them; 2) to aid and direct these societies so that their administrative, economic,

(1) See our issue for January 1911.

book-keeping and commercial situation may become more regular ; 3) to aid the associated societies in any relations they may have with the Treasury, provided that they keep their books according to methods determined by the executive committee ; 4) to promote the formation of new cellar societies. In order the better to reach these aims the administrative council of the association is able to form local committees in every province of the kingdom. The general meeting, made up of members of the associated institutions, may then, if necessary, nominate a college of arbiters who shall decide, after investigation, all disputes which may arise among associated societies, or between them and the association and others, as to the working of the cellar societies. The organs of the association, other than the general meeting, are the administrative council which has seven members and the executive committee to which the president and two councillors belong.

* * *

To conclude : the examples we have cited prove that the organization of producers in the popular form of cellar societies may constitute in Italy one of the best means of improving the production of wine. It is in fact surprising that, especially in the districts where vineyards are most scattered over small holdings, there is not already a network of such institutions, well organized and having wherewithal to develop a useful activity. Such a network may be formed with the help of a liberal system of taxation (1) and the propaganda which the Italian Association of Cellar Societies will certainly not fail to undertake actively and on broad lines.

(1) By a recent and wise resolution the Ministry of Finance exempted dairy, cellar and workshop societies from the tax on war super-profits.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

GREAT BRITAIN AND IRELAND.

THE LANCASHIRE AND SOUTH WESTMORLAND FARMERS' ASSOCIATION.—
Agricultural Gazette, Vol. LXXXVIII, No. 2325, London, 22 July 1918.

This association was founded in 1900. It has nearly sixty branches and more than 4,000 members, and other 500 members belong to its affiliated associations. These figures should be considered in relation to the facts that agriculture is better organized in Lancashire than in any other English county and that altogether about 6,000 Lancashire farmers belong to societies of this kind.

The association exists only to protect agricultural interest and do a work of propaganda: it neither supplies goods to members nor buys from them, these functions being efficiently performed by a number of co-operative organizations in the county. The members are drawn from all classes of the farming community, having since last year included labourers. The subscription paid by a vice-president is £ 2.2s, by an honorary member £ 1.1s., by a tenant farmer farming more than thirty acres 10s., by a tenant farmer farming a less area 5s., by a holder of less than five acres 2s. 6d., by a farmer's son living at home 2s. 6d., and by an agricultural labourer 1s.

Each branch of the association appoints its own chairman, vice-chairman, secretary and committee, and holds meetings for the discussion of agricultural topics. All the new orders and Acts of Parliament affecting agriculture, which have in Great Britain become so numerous, are explained at branch meetings, and the central offices act as bureaux of general information in this and other respects.

The membership of a branch society varies from fifteen to 234; the Chorley and the Wigan branches have more than 200 members each and several branches more than a hundred, but the membership of most of the branches is between fifty and a hundred. For every fifty members a branch elects one delegate to the council of the association, to which moreover the chairmen and secretaries of the branches belong *ex officio*. This council meets five or six times a year to consider resolutions sent up by the branches and any other matters of interest to farmers.

The association has an executive and a financial committee, a conciliation board which adjusts disputes among members and between members and others, a parliamentary committee concerned with the adequate representation of agricultural interests in Parliament, and a committee concerned with the wholesale and retail price of milk and other matters connected with the milk trade. This last committee has established relations with the Food Control Committee.

The association gives legal advice to its members gratis, an important service in these days of frequent orders and regulations. The association's solicitors may contest claims made on members and support them in disputes which the conciliation committee and the secretary have failed to settle. It collects debts on behalf of members, and it supplies information as to the financial position of the persons with whom members enter into business relations.

The annual income of the association amounts to about £1,500 and it has £1,800 invested in securities.

Agricultural co-operation is advocated by the association and it has taken part in the formation of several successful co-operative societies. Of these one of the most important is the Farmers' Trading Society which became active in 1910 and had last year a turnover of £340,000. It sells chiefly foodstuffs, manures and coal, but it also deals in other farmers' requisites, and to a less extent it buys produce. Five other co-operative societies have been formed by members of the association.

The Lancashire Federation of Rural Friendly societies which was founded on the grounds, now proved valid, that the agricultural classes should have their separate friendly society because they lead healthier lives than town-dwellers, owes its origin to the association. It is registered under the National Insurance Act, and is one of the most successful friendly societies in the country. The association moreover supports the Agricultural and General Co-operative Insurance Society, Ltd, which has for several years paid on an average a bonus of 20 per cent. to its members.

ITALY.

THE SUPPLY OF CREDIT TO CO-OPERATIVE SOCIETIES. — *Gazzetta Ufficiale del Regno d'Italia*, Rome, No 135, 8 June 1918.

The *Gazzetta Ufficiale* publishes an interesting lieutenant's decree, N^o. 723, dated 26 May 1918, which authorizes ordinary and co-operative institutions of credit and the National Institute of Credit for Co-operation, to open current credit accounts and grant negotiable loans, independently of any provision in their by-laws, to autonomous bodies of consumers which are duly recognized and to legally constituted co-operative consumers' societies and to their consortia. The ordinary savings-banks and the *Monti di Pietà* can undertake business of this kind with the authorization of the Ministry of Industry, Commerce and Labour.

Such credit accounts and loans are guaranteed to the issuing institutions by a special privilege over the merchandise and provisions acquired with the sum lent and over all other property, wherever situated, of the debtor body. This privilege comes immediately next in order to that of the State mentioned in article 1958 of the Civil Code and is also a guarantee of any renewals which may be made of the current accounts and the loans.

In order that such privilege be valid and effective it is necessary: a) that it follow on a written deed; b) that it has been made binding as the

effect of its registration at the registering office of the district in which the debtor body has its headquarters; c) that a copy of the deed constituting the privilege be deposited in the office of the lawcourt of such district.

The deed constituting the privilege may, by an agreement between the parties concerned, name a guardian of the merchandise and goods subject to the privilege, and this guardian will have the liabilities of a legal depositary.

The sums lent to the aforementioned bodies should be repaid gradually as the merchandise and goods subject to the privilege are sold. If the debtor does not, when the debt falls due, repay the whole sum received, the praetor of the district may, at the instance of the issuing institution and after duly informing himself, order the sale of the goods subject to the privilege, which sale will take place without legal formality.

The contracts opening current credit accounts and the contracts for loans and constituting the privilege will be drawn up on paper bearing a lira stamp and will be subject to a fixed registration fee of 1.22 liras. The deeds relating to the loans, including negotiable loans, will be exempt from every stamp and registration fee. Legal deeds and claims arising out of these loans will pay dues at half the ordinary rate.

A notable additional provision extends to Italian legislation a principle which has already had a wide and fruitful application to foreign legislation. This is the increase of the acquiring capacity of a body of consumers by means of credit which hinges on the thing acquired itself. Here we have substantially an evolution of the pledge, brought into relation with the needs and the technique of modern economic life. The attainment of the aim of the decree is much helped by the simplicity of the mechanism placed at the disposal of the consumers' co-operative societies, the financing of which is beset with well known difficulties, and by the rapid procedure adopted.

RUSSIA.

CO-OPERATIVE FISHING. — *The Russian Co-operator*, Vol. 2, No. 6, London, May 1918.

The most important fisheries of Russia are situated along the coast of the Caspian Sea and they bring yearly to the market over 36 million poods of fish (about 600,000 tons). The fishing population of these regions is, as regards its majority, organized in co-operative credit societies. Thus on 1 January 1915 there were in the province of Astrachan 47 fishermen's credit societies and 17 societies which included fishermen and also farmers and cattle breeders. The total membership of these societies exceeded 20,000. In the province of Baku there were four fishermen's societies, and three other societies of which from 10 to 20 per cent. of the members — 500 of them in all — were fishermen. In the province of Ural there were from 10 to 15 similar societies.

According to the reports of the fishermen's societies of the Astrachan province they granted in 1914 more than 20,600 loans of a total sum of 1,468,000 roubles (about £150,000) for the purchase of fishing tackle. Both in number and amount the advances showed a considerable advance on those of the two previous years when 16,000 loans of 1,109,000 roubles (£111,000) and 17,000 loans of 1,221,000 roubles (£125,000) were respectively made. A single loan was usually of less than 300 roubles, loans of 500 and 1000 roubles being granted exceptionally on the security of fishing tackle.

In addition to their lending business all the credit societies supplied their members with the articles necessary to their trade, and with various articles of food such as flour, sugar and tea.

Only a few of the societies in Astrachan practised the co-operative sale of fish. In the province of Baku, however, practically the whole catch was sold co-operatively through the medium of the societies.

Cold storage, which is so important to the fish trade, was owned only by very few societies.

The number of societies is still small and they do not possess sufficient means. The loans they make are far from sufficient. The average amount of a loan is 71 roubles (about £7) and it is made for a short term; in the best case such loans can but keep the trade at its former level, it cannot allow nor assist the introduction of improvements. The fishermen need long-term and special loans for the acquisition of motor boats and modern tackle, the provision of cold storage and the facilitation of the co-operative sale of their catch.

The value of the existing co-operative societies, inadequate though they be, is however far from small. They are accustoming the fishermen to organization and doing a valuable educative work.

SWITZERLAND.

THE SWISS FEDERATION OF CO-OPERATIVE GOAT BREEDING SOCIETIES IN 1917 — *Jahresbuch des schweizerischen Ziegenzucht-Genossenschafts-Verbandes* pro 1917. Supplement to No. 10 of the *Schweiz-Zeitschrift für Kleinviehzucht*.

The associations concerned with the breeding of small live stock have latterly become very important owing to the increasing lack of meat and milk and the necessity to substitute for cattle and milch cows animals which are more easily and cheaply bred and kept. It is therefore interesting to notice some data given in the report for 1917 published by the federation of the goat breeding co-operative associations in Switzerland as to the development of such societies in that country.

At the end of 1917 the federation united 236 co-operative societies having 6,834 numbers. As compared with 1916 there had been an increase of 25 sections and 374 individual members. The federation is made up of

seven cantonal federations, seven co-operative associations and two committees for the breeding of small live stock.

The federation's activity affects among other things the organization of markets for goats and sheep kept for purposes of breeding, markets which are very useful from several points of view. It also organizes special courses of instruction and lectures on the scientific keeping of small live stock. Its organ is the *Schweizerische Zeitschrift für Kleinviehzucht*, a Swiss paper concerned with the keeping of small live stock and arising out of an amalgamation of two earlier publications. Breeding is regulated by the committee of the Swiss goat breeding federations which concerns itself with the selection of animals and their transport to the frontier.

Part II: Insurance and Thrift

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES

CANADA.

AGRICULTURAL INSURANCE IN SASKATCHEWAN IN 1917 — *Canadian Finance*
Vol IX, No 12 Winnipeg, 19 June 1918.

The various insurance societies in Saskatchewan have supplied data for 1917 which allow us to keep our readers informed as to the development in that year of the societies insuring against hail, insuring live stock and assuming the risks of cyclones.

I. — Insurance against Hail. 1917.

Names of Companies	Premiums \$	Indemnities \$
Acadia Fire	63,048	14,005
British America	91,996	30,125
British Crown	335,189	105,537
Canadian Indemnity	183,304	40,525
Canada Hail	98,957	24,718
Canada Security	119,386	16,099
Connecticut Fire	117,047	26,667
Central Valley Mutual Hail	4,127	none
Dominion Fire	76,993	17,117
Excess Insurance	170,703	47,963
Great North Insurance	93,609	23,476
Harford Fire	322,185	122,384
Home Insurance	294,460	68,896
Middle West Insurance	45,524	12,964
Nova Scotia Fire Underwriters	48,177	11,976
Rochester Underwriters	94,154	22,740
St. Paul Fire and Marine	109,063	67,788
Winnipeg Fire Underwriters	23,713	2,751
Westchester Fire	118,101	31,346
Total 1917	\$ 2,409,747	687,086
Total 1916	\$ 1,431,202	1,713,326

II. — *Live Stock Insurance. 1917.*

Names of Companies —	Premiums — \$	Losses — —	Indemnities — —
General Animals	12,082	4,615	3,665
Great North Insurance	9,120	1,800	300
Hartford Fire	10	207	207
Yorkshire Insurance	3,309	600	600
Total 1917	\$ 24,521	\$ 7,222	\$ 4,772
Total 1916	15,773		4,539

III. — *Insurance against cyclones. 1917.*

Names of Companies —	Premiums — —	Losses — —	Indemnities — —
American Central	136	26	26
Aetna Insurance	859	none	none
Canada National . . . . .	... ..	.....	.....
Continental Insurance of New York	40	none	none
Fidelity-Phoenix Fire	none	none	272
Firemen's Insurance	92	none	none
Great American	259	none	none
Glens Falls	536	none	none
Hartford Fire . . . . .	.....	.....	.....
Home Insurance	772	none	none
Insurance Co. of Pennsylvania	938	1	1
National Fire of Hartford	397	none	none
National Union	77	38	38
Northwestern National	476	54	54
Scottish Union and National	407	15	15
Springfield Fire and Marine	1,805	23	23
St. Paul Fire and Marine	3,384	496	606
Total 1917	\$ 10,186	\$ 655	1,037
Total 1916	19,797		\$ 11,837

GERMANY.

1. THE ACTIVITY OF THE LEIPZIG "GESELLSCHAFT ZU GEGENSEITIGER HAGEL-SCHÄDENVERGÜTUNG" IN 1917. — *Wallmanns Versicherungs-Zeitschrift*, 52nd year. Vol. I, No. 57. Berlin, Lankwitz, 17 March 1918.

This mutual society has completed its 94th year of business during which it still confined itself to insurance against hail for the benefit of its members. It concluded no transactions involving fixed premiums and it undertook and ceded to other societies only a limited number of reinsurance contracts. In addition to these general characteristics appearing in the annual report which we wish to notice briefly there is the indication that 1917 may be considered to have been a year favourable to the development and extension of the society since during it the amounts of the insured sums and the premiums were further increased.

The following figures resume the results obtained: number of policies, 24,286 of which 24,285 belong to the society's own account; insured sum, 190, 192, 123 marks of which 190, 102, 658 marks belong to such account; initial and additional premiums, 2,343,425.45 marks of which 2,342,265.32 marks belong to such account; net indemnities including the share of the reserve 1,815,459.02 marks, belonging exclusively to such account and thus apparently indicating that the only reinsurance transaction undertaken by the society is to be counted as entirely to its profit.

Rebates granted amounted to 69,774.47 marks on contracts of several years' duration, and 64,653.02 marks for past years in which no losses had to be indemnified.

The society's receipts reached a total of 1,594,569.86 marks as against an expenditure of 2,660,033.74 marks. The initial premiums fell too much below the indemnities which had to be paid. The deficit thus arising, which reached 1,074,463.88 marks, was covered first by deducting 70,320.08 marks from the reserve fund and secondly by calling for 1,004,143.80 marks in additional premiums, or rather more than 75 per cent. of the 1,387,980.08 marks which were the sum of the net premiums received. It was only by the comparatively insignificant sum of 657.74 marks that this percentage of 75 was surpassed.

The society invests in the safest securities. Its investments amount to 706,605 marks and the resultant interest to 29,416.65 marks.

The costs of administration were 446,251.72 marks or 0.23 per cent. of the insured sum, as in the previous year.

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2. THE ACTIVITY OF THE Breslau "OSTDEUTSCHER HAGEL-VERSICHERUNGS-VERBUND" IN 1917. — *Wallmanns Versicherungs-Zeitschrift*, 52nd year, Vol. I, No. 47, Berlin Lankwitz, 17 March 1918.

This society's report for 1917 covers its twenty-fourth year of business in which it also concerned itself almost entirely with insurance against hail.

The first losses by hail were registered on 20 May, the last on 20 August. The summarized data show that hail fell on 35 days, that there were 428 notifications of losses and that the total preliminary estimates of losses covered a sum of 1,195,437 marks.

As to the dates of the most damaging falls: on 31 May the loss was 355,721 marks, on 22 June 141,259 marks; on 30 June 99,755 marks; on 28 July 164,774 marks, and on 30 July 115,785 marks. These are gross figures. The losses affected 4 per cent. of the insured area; 12.4 per cent. of the members of the society made declarations of losses; and the damage caused amounted to 14.7 per cent. of the insured risks. Cereal crops were affected by 88.2 per cent. of the losses, including rye by 45 per cent. and oats by 22 per cent. It was in no case necessary to incur costs connected with claims and arbitration, for the whole business was amicably settled.

In order to cover the expenses on the distributory system the premiums of members were fixed this year at only 1.14 per cent. of the insured sums, as against 1.38 per cent. in 1916, 0.86 per cent. in 1915, and 1.25 per cent. in 1914 and 1913. The average for the years from 1912 to 1916 was 1.25 per cent. Seven million marks represent the insurance of straw in 1917 when it was possible to insure separately, that is 6.2 per cent. of the total insured sums as against 6.5 in 1916, 6.2 in 1915, 4.2 in 1914 and 5.5 in 1913. During the year under review the society insured cereal crops almost exclusively.

Insured sums were greater by 2,072,495 marks than in the preceding year. This increase is due almost entirely to new enrolments of members.

The other data are the following: declared amount of insured sums, 113,346,675 marks; insured sums 127,088,700 marks; premiums to be distributed 1,456,316 marks; number of losses 428; gross amount of damages 1,266,027 marks.

Costs of administration were 72,643 marks as against 72,393 marks in the previous year, or 0.0571 as against 0.0598 per cent. of the sums really insured.

Under the reserve established by the by-laws 77,058 marks were entered, and under the reserve for the profit and loss account 98,813 marks. The reserve fund was thus brought up to 559,568 marks or 0.44 per cent. of the sums insured last year and 0.32 per cent. of those insured in the previous year. A special reserve of 25,000 marks has also, in conformity with the resolutions of the general meeting, been entered in the balance-sheet.

ITALY.

TOWARDS A NATIONAL INSTITUTION OF INSURANCE AND REINSURANCE OF CATTLE DESTINED FOR AGRICULTURE. — *La Mutualità Agraria*, Rome, No. 12, 30 April 1918.

On the 21st of last April there was held at Rome a conference organized by the *Federazione fra Province e Comuni per l'incremento della zoo-*

tecnică (1). Its object was to discuss the most urgent problems connected with this important branch of rural economy. The report of Dr. Mario Casalini, manager of the *Istituto Nazionale della Mutualità Agraria*, which was entitled "Towards a powerful national institution insuring and reinsuring cattle intended for agriculture", showed all the importance of solving, in view of the increased price of live stock and the necessity of building up anew the national capital in live stock, the problem of insuring such stock. A body like that contemplated has already taken the initiative in forming a strong central institution which would insure the live stock on large farms directly and reinsure the small mutual societies which are best adapted to insurance of this kind.

The congress passed a resolution advocating that savings-banks, popular banks, agricultural co-operative associations, provinces and communes, bodies undertaking insurance and the State should unite to form a new institution and invite the Minister of Industry, on whom depend the thrift departments, the association of savings-banks, the national association of popular banks and the federation of co-operative credit institutions, to second them in an endeavour immediately to attain their aims.

SWITZERLAND.

4. ENCOURAGEMENT OF INSURANCE AGAINST MORTALITY AMONG LIVE STOCK IN 1916. — Report of the Swiss Department of Public Economy as to the Business done in 1917.

In a former issue (2) we reported data as to the subsidies granted by the Confederation to insurance against mortality among live stock in 1915.

In 1916 as in the previous year the Confederation granted subsidies at the rate of one franc a head for the large live stock insured at the time the new census was taken and at the rate of 40 centimes a head for insured small stock (goats).

The following table gives data as to this subject for the seventeen cantons or half cantons to which the subsidies in question have been granted.

(1) See in this connection our issue for January 1918, page 38

(2) See our issue for December 1917, page 25.

Cantons	Number of insured animals	Number of casualties	Indemnities paid		Cantonal subsidy		Federal subsidy
			Actual sum	per head of stock which died or was slaughtered	Actual sum	per head of insured stock	
			Fr.	Fr.	Fr.	Fr.	Fr.
1. Zurich	114,219 { large stock. goats	3,799 488	653,868.00	172	182,535.13	1.59	114,219.00
2. Berne	196,758 { large stock. goats	5,272 161	14,144.30 746,944.77	29 142	3,106.57 196,758.00	0.42 1.00	2,951.20 196,758.00
3. Uri	12,436 { large stock. goats	349 445	60,115.01 71,307.19	172	3,597.24 30,093.01	0.20 2.43	448.00 12,436.00
4. Glarus	12,401 { large stock. goats	1,917 1,087	153,447.63 120,873.26	78	20,000.00 43,115.00	1.61 1.00	12,401.00 62,521.60
5. Friburg	78,152 { large stock. goats	1,087 409	153,447.63 8,783.46	111	111	1.00	43,115.00
6. Solothurn	48,115 { large stock. goats	1,087 409	120,873.26 8,783.46	21	2,151.00	0.30	2,151.00
7. Basle (town)	7,170 { large stock. goats	54 586	9,202.50 51,821.26	170	4,773.50	2.92	1,636.00
8. Basle (country)	20,215 { large stock. goats	54 455	9,202.50 747.75	88	20,215.00	1.00	20,215.00
9. Schaffhouse	12,431 { large stock. goats	345 169	85,823.70 5,933.54	248	182.00	0.40	182
10. Grisons	2,093 { large stock. goats	345 169	5,933.54 5,933.54	30	21,371.58	1.72	12,431.90
11. Argovie	76,870 { large stock. goats	2,003 2,169	596,135.53 180,372.77	268	1,257.26	0.60	837.20
12. Thurgovie	78,508 { large stock. goats	2,169 889	596,135.53 9,058.94	83	150,297.33	1.96	66,519.00
13. Ticino	7,635 { large stock. goats	889 2,102	180,372.77 317,309.47	19	78,401.50	1.00	78,401.50
14. Vaud	57,948 { large stock. goats	2,102 501	9,058.94 317,309.47	122	3,812.75	0.59	3,050.20
15. Valais	10,136 { large stock. goats	501 187	317,309.47 41,679.12	122	57,048.00	1.00	57,048.00
16. Neuchâtel	7,680 { large stock. goats	187 1,341	41,679.12 241,219.52	223	8,218.00	0.50	8,218.00
17. Geneva	51,680 { large stock. goats	1,341 594	241,219.52 95,216.20	180	6,826.58	0.89	6,826.58
	32,785 { large stock. goats	594 227	95,216.20 30,081.16	160	77,520.00	1.50	51,680.00
	9,936 { large stock. goats	227 287	30,081.16 50,147.95	133	32,785.00	1.00	32,785.00
	8,923 { large stock. goats	287 23,319	50,147.95 3,445,265.04	175	123,187.78	1.24	9,936.00
	830,729 { large stock. goats	23,319 1,741	3,445,265.04 41,665.23	—	22,182.00	2.00	8,623.00
	26,971 { large stock. goats	1,741 35,060	41,665.23 3,486,930.21	—	1,026,980.01	—	805,769.68
	857,700 { large stock. goats	35,060 26,755	3,486,930.21 3,481,031.59	—	10,957.88	—	9,619.60
	854,961 { large stock. goats	26,755 1916	3,481,031.59 1916	—	1,037,927.59	—	315,388.26
		1916 1915		—	1,031,869.81	—	791,847.10

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2. ENCOURAGEMENT TO INSURANCE AGAINST HAIL, IN 1917 — *Rapport du Département suisse de l'Economie publique sur sa gestion en 1917* (Report of the Swiss Department of Public Economy on Business done in 1917).

The subsidies granted by the Confederation to insurance against hail were fixed in accordance with a decree of the Federal Council dated 11 December 1914. The cost of insurance of this kind in the various cantons and the subsidies granted in 1917 are shown in the following table.

Cantons	Number of policies	Insured capital	Contribution of Cantons (excluding federal subsidy)				Federal subsidy
			Premiums	To costs of policies		Total	
				To premiums			
		Fr.	Fr.	Fr.	Fr.	Fr.	
1. Zurich	6,164	10,045,760	171,066.50	6,362.95	21,383.32	27,746.27	26,564.67
2. Berne	17,139	36,669,390	456,977.30	15,570.60	46,909.42	62,480.02	62,480.02
3. Lucerne	7,474	22,681,600	353,415.60	6,123.80	35,341.56	41,465.16	41,465.16
4. Schwyz	1,110	2,291,040	46,943.90	197.25	4,694.39	4,891.64	4,891.64
5. Obwald	1,061	322,100	25,411.80	894.15	2,541.18	3,435.33	3,435.33
6. Nidwald	541	870,380	17,666.20	—	1,766.20	1,766.20	1,766.62
7. Zug	1,340	3,235,260	59,322.80	1,563.00	10,416.49	11,979.49	8,601.35
8. Friburg	2,449	6,206,970	59,555.70	2,223.00	5,955.57	8,178.57	8,178.57
9. Soleure	6,110	7,180,440	76,610.80	5,320.50	7,703.22	13,023.72	13,002.62
10. Basle (town).	51	289,380	3,072.00	55.80	793.62	849.42	470.58
11. Basle (country)	3,232	3,031,790	35,945.90	2,699.20	5,639.09	8,338.64	7,683.85
12. Schaffhouse	2,390	3,278,300	41,321.00	1,999.20	5,165.12	7,164.32	7,164.31
13. Appenzel (ext. Rh.)	997	1,281,810	20,484.50	852.30	2,560.56	3,412.86	3,412.85
14. Appenzel (in. Rh.)	145	326,810	3,471.20	72.50	260.34	332.84	332.84
15. S. Gall	4,809	6,315,150	75,128.20	6,451.35	7,924.10	14,375.45	11,970.94
16. Argovie	13,399	11,697,706	149,391.90	10,760.85	13,103.98	23,864.83	23,864.83
17. Thurgovie	4,426	5,538,290	65,539.30	3,544.65	8,867.11	12,411.76	12,411.75
18. Vaud	4,531	14,883,990	238,853.80	9,109.15	39,894.51	49,003.66	44,037.65
19. Valais	73	78,160	3,132.00	124.10	485.40	609.50	549.90
20. Neuchâtel	1,441	2,183,561	75,020.85	394.12	18,746.73	19,140.85	14,559.08
21. Geneva	952	3,710,030	142,841.00	1,221.05	42,851.20	44,073.25	28,642.89
1917	79,894	142,117,917	21,19,472.25	75,539.67	283,004.11	358,543.78	325,487.45
1916	73,104	107,984,052	1,594,996.60	68,005.00	216,890.16	284,895.00	258,687.97

The increase in the number of the policies and in the insured capital and the premiums between 1916 and 1917 was considerable. Corresponding to this general increase last year there was an increase in the financial contribution of the cantons and a notable increase in the federal subsidy granted to insurance against loss occasioned by hail.

UNITED STATES.

MUTUAL INSURANCE AGAINST FIRE IN CALIFORNIA. — MESSENGER (C. B.) in the *California Cultivator* Vol. I., No. 2, Los Angeles and San Francisco, 1 June 1918.

The first fire insurance companies of any kind to be organized in the United States were mutual companies, the pioneer of all being the Philadelphia Contributionship which was formed on 18 February 1752 and had Benjamin Franklin for a founder. This company, after some unfortunate experiences, decided no longer to insure houses which had trees in front of them, since these make it difficult to fight a fire. In 1786 the Mutual Assurance Company was organized to insure houses in front of which there were trees. Both these companies are still active. Numerous companies insuring against fire, both joint stock and mutual companies, were organized after them in the United States (1). Most of them obtain good results. The Insurance Commissioner of Illinois recently stated that his department had not received one complaint as to farmers' mutual insurance companies and that their record was without blemish. The forty-fourth annual report of the Insurance Commission of the State of Iowa states that the total amount of insurance in force at the end of 1912 exceeded \$ 400,000,000. "The total cost to the members on each \$ 1000 of insurance for the year was but \$ 2... over a period covering the years from 1878 to the close of 1912. The average cost in town mutuals was \$ 1.30 per \$ 1000". The reports of the insurance superintendents of all States for the year 1918 give much the same figures.

There are now 20 farmers' mutual fire insurance companies in California. Their organization began in 1898 under the Act of 1897, which at first confined them strictly to the insurance of farm buildings. Since no appliances for fighting fire are usually within reach of these they are considered to constitute an undesirable risk, and the rate of premiums was, although materially lower than those of the older companies, higher than it should have been. A revision of State laws allowed business to be undertaken by the farmers' mutual companies in incorporated cities; but the maximum of risks undertaken in any one city block and the maximum single risk were alike made \$ 4500. The enlarging of their field strengthened these mutual companies and is making a proportionate reduction of their working costs possible.

Most of these companies have reserves which would cover even abnormally large losses. Some of them however consider it sufficient that each member should carry his own reserve, and that assessments should be made in case of abnormal losses. The Los Angeles County association now has the largest reserve, one of \$ 32,000, but this is an inconsiderable amount since the company's policies, now in force, amount to \$ 10,000,000. The total value insured by the 20 companies is about \$ 60,000,000.

(1) See or issue for June 1917, pages 34 to 47.

We give a list of the farmers' mutual companies in California and some of the most recent data with respect to them :

Name of Company	Insured Value \$
Farmers' Mutual Fire Insurance Company of Mendocino county . . .	58,606
" " " " " Turlock " . . .	2,043,880
" " " " " Yolo " . . .	1,400,460
" " " " " San Joaquin " . . .	2,244,577
" " " " " Hilmar in Merced " . . .	568,957
Humboldt County Fire Insurance Company	1,212,457
Lake County Farmers' Mutual Fire Insurance Company	249,930
Los Angeles County Mutual Fire Association	8,935,692(k)
Napa County Farmers' Mutal Fire Insurance Company	446,448
Orange " " " " " "	5,702,295
Patrol Mutual Fire Insurance Company of Tulare County	724,261
Sacramento County Patrons' and Farmers' Mutual Fire Insurance Company	1,187,615
San Bernardino " Mutual Fire Insurance Company	5,555,333
Santa Barbara " " " " " "	1,160,328
Santa Clara " " " " " "	2,081,074
Scandinavian Mutual Protective Fire Insurance Association of Fresno County	6,297,089
Sonoma County Farmers' Mutual Fire Insurance Company	3,632,331
Ventura " " " " " "	3,225,999

(1) Since this report was made out more than a million has been added so that the total for this county now exceeds \$ 10,000,000. In other counties there has without question been a like increase.

Part III: Credit

URUGUAY.

MORTGAGE CREDIT IN 1915.

OFFICIAL SOURCE:

ANUARIO ESTADÍSTICO DE LA REPÚBLICA ORIENTAL DEL URUGUAY. Año 1915. Montevideo, 1 vol., 4to, 1917.

In order to obtain a precise idea of the position with respect to mortgages in Uruguay in 1915, the last year as to which the government has

TABLE I. — *Registration of Property in the Republic at 31 December 1915.*

Department	Number of landowners	Area in hectares	Value \$
<i>Urban and rural registration.</i>			
Montevideo	92,964	60,000	360,826,500.00
<i>Rural registration.</i>			
Artigas	1,623	1,154,547.3508	30,451,998.02
Canelones	7 705	431,947.8126	62,030,150.49
Cerro Largo	3,171	1,326,701.2890	52,927,261.31
Colonia	4,708	584,202.4958	59,423,033.80
Durazno	3,150	1,200,715.7488	69,218,271.89
Flores	1,396	514,380.6399	46,013,180.95
Florida	4,313	1,019,723.7675	76,554,068.00
Maldonado	4,059	434,476.3559	16,635,150.05
Minas	5,245	997,167.4146	43,815,385.19
Paysandú	1,351	1,356,763.8020	63,513,506.98
Rio Negro	1,006	925,587.2052	58,491,047.94
Rivera	1,905	920,005.0482	26,775,691.64
Roca	3,617	1,001,523.7437	26,995,586.47
Salto	2,026	1,370,868.4506	58,757,999.39
San José	3,697	484,097.3766	36,702,453.00
Soriano	2,225	882,758.0781	82,578,210.00
Tacuarembó	3,022	1,572,162.1235	55,929,909.00
Treinta y Tres	2,255	887,237.0000	22,180,925.00
Total	56,574	17,064,865.7028	888,993,829.12

published statistical data, it is necessary to form an estimate of landownership in that year.

Table I shows the number, area and value of registered landed properties on 31 December 1915.

An equally important piece of information would be the number of the sales of real estate registered in 1915; but the most recent figures referring to this point are unfortunately no later than 1913.

The government of Uruguay has however thought it admissible to place them in juxtaposition with the statistics of mortgages in 1915, and we follow this example.

TABLE II. — *Number of sales of real estate.*
Selling transactions registered in 1913. - Classified by departments.

Department	Number of entries	Number of properties	Area in (hectares)	Value \$
Arlgas	219	238	20,994.9970	1,028,576
Canelones	602	740	6,139.4109	1,227,895
Cerro Largo	416	454	24,198.9131	1,164,002
Colonia	492	601	11,435.2948	1,951,292
Durazno	506	594	17,900.2361	1,226.466
Flores	243	264	9,621.1175	931,304
Florida	540	569	14,319.4231	1,352,108
Maldonado	337	429	5,911.5046	629,962
Minas	608	644	19,786.9736	1,191,450
Montevideo	4,886	7,220	2,117.1291	17,413,308
Paysandu	242	252	47,477.6250	1,892,872
Rio Negro	115	193	9,214.8717	583,228
Rivera	332	379	21,797.8867	641,239
Rocha	333	346	9,807.9370	438,826
Salto	419	515	22,027.1534	1,788,061
San Jose	372	423	8,002.7690	1,263,412
Soriano	326	414	29,774.1087	2,650,084
Tacuarembu	281	324	26,116.4189	1,040,477
Trenta y Tres	442	603	12,424.0201	686,859
Total	11,711	15,202	321,067.7903	39,101,421

We are now in a position to deal with the statistics of mortgages, properly so called, for the year 1915. We will keep carefully apart from each other the constitution and the extinction of mortgages, merely bringing

together the data referring to both for purposes of comparison. Tables III to IX show successively the number and value of the constitutions (Table III) and the extinctions (Table IV) of mortgages, and the comparative importance of the various constitutions and extinctions (Table V) and their distribution among the Mortgage Bank of Uruguay and individuals (VI). Table VII shows the very considerable variations in the rates of interest asked. Finally Tables VIII and IX discover the terms for which investments have been made.

The data for 1915, interesting as they are in themselves, should not be considered in isolation. They are therefore brought together with data referring to earlier years in Tables X and XI.

TABLE III. — *Mortgages registered in 1915.*

Department	Number of entries	Number of properties	Value \$
Montevideo	2,347	2,883	8,480,844
Artigas	65	84	504,877
Canelones	317	394	627,955
Cerro Largo	114	122	488,428
Colonia	270	353	1,022,819
Durazno	208	289	1,283,282
Flores	88	112	430,679
Florida	260	346	900,373
Maldonado	105	135	214,219
Minas	268	355	893,932
Paysandú	175	257	2,189,930
Rio Negro	85	101	1,016,678
Rivera	138	239	532,132
Rocha	150	187	378,870
Salto	135	187	1,056,763
San Jose	343	491	982,218
Soriano	185	242	1,273,778
Tacuarembó	144	182	976,170
Treinta y Tres	124	174	692,021
Total	5,521	7,133	23,945,968

The reader will not fail to notice the considerable importance in this sphere of the Mortgage Bank of Uruguay. Such importance is shown by Tables VI and X; and we have thought it necessary to devote entirely to this great bank Tables XII to XIX which aptly complete the figures we published in our issue of January 1917. Obviously it should be remembered that the data in Tables I to XII refer to the solar year while those in the eight last Tables, devoted to the activity of the Mortgage Bank of Uruguay, refer to this establishment's business year which closes on 31 March. The reader will however soon discover that this difference of arrangement is no obstacle to obtaining an exact idea of the development of a movement which incessantly gathers solidity.

TABLE IV. — *Extinction of mortgages in 1915.*

Department	Number of entries	Number of properties	Value \$
Montevideo	2,234	2,693	8,823,908
Artigas	41	55	742,653
Canelones	180	218	410,610
Cerro Largo	61	81	354,782
Colonia	210	243	976,449
Durazno	129	177	1,240,472
Flores.	72	87	552,358
Florida	214	240	829,484
Maldonado	64	76	229,565
Minas	228	281	779,730
Paysandú	99	121	788,680
Rio Negro	50	70	719,106
Rivera	76	105	237,709
Rocha	109	138	429,848
Salto	68	101	823,246
San José	284	324	742,002
Soriano	129	171	993,361
Tacuarembó	77	92	342,745
Treinta y Tres	85	97	175,418
Total	4,410	5,380	20,192,126

TABLE V — *Number and value of mortgages constituted and number in 1915.*

Value \$		Constitutions of mortgages		Extinctions of mortgages	
		Number	Value \$	Number	Value \$
I to	100	34	3,235	27	2,509
101	200	157	27,936	112	20,507
201	300	271	76,698	181	51,079
301	400	215	82,354	177	67,987
401	500	384	188,422	282	139,264
501	600	236	138,864	172	101,414
601	700	168	115,038	117	80,348
701	800	163	127,813	111	87,748
801	900	87	76,656	51	44,663
901	1,000	491	489,181	443	442,375
1,001	1,100	69	75,052	34	37,035
1,101	1,200	147	175,334	108	129,168
1,201	1,300	78	100,402	58	74,666
1,301	1,400	59	81,500	32	44,364
1,401	1,500	306	458,560	226	338,463
1,501	1,600	71	112,899	56	89,140
1,601	1,700	46	77,626	31	62,354
1,701	1,800	50	89,737	46	82,464
1,801	1,900	27	50,676	27	50,695
1,901	2,000	370	739,498	311	621,866
2,001	2,500	247	587,641	241	581,804
2,501	3,000	342	1,004,446	254	744,692
3,001	3,500	136	460,552	103	350,886
3,501	4,000	204	804,458	188	742,787
4,001	4,500	82	361,660	66	291,628
4,501	5,000	165	820,200	147	730,095
5,0	5,500	37	200,480	31	168,040
5,501	6,000	111	660,551	123	735,103
6,001	6,500	26	166,776	30	194,335
6,501	7,000	74	514,407	66	460,021
7,001	7,500	24	178,434	19	141,172

TABLE V. (Continued) — *Number and value of mortgages constituted and number of extinctions in 1915.*

Value \$	Constitutions of mortgages		Extinctions of mortgages	
	Number	Value \$	Number	Value \$
7,501 à 8,000	75	597,966	68	542,846
8,001 » 8,500	20	168,055	12	100,290
8,501 » 9,000	40	359,098	31	277,305
9,001 » 9,500	10	93,022	7	65,681
9,501 » 10,000	73	729,655	77	768,867
10,001 » 11,000	29	314,256	21	227,821
11,001 » 12,000	44	522,761	43	513,499
12,001 » 13,000	18	229,670	15	191,594
13,001 » 14,000	25	347,109	24	333,752
14,001 » 15,000	46	686,358	30	448,594
15,001 » 20,000	88	1,611,409	68	1,244,849
20,001 » 25,000	46	1,085,441	35	835,165
25,001 » 30,000	28	793,294	24	685,900
30,001 » 35,000	23	768,884	7	233,302
35,001 » 40,000	20	771,254	12	470,318
40,001 » 45,000	5	218,588	7	304,000
45,001 » 50,000	14	684,263	17	841,300
50,001 » 60,000	7	390,000	9	526,000
60,001 » 70,000	5	326,747	5	331,349
70,001 » 80,000	9	682,742	1	75,000
80,001 » 90,000	5	428,091	4	345,879
90,001 » 100,000	4	400,000	10	995,144
100,001 » 120,000	1	106,747	2	222,000
120,001 » 140,000	3	372,600	3	388,000
140,001 » 160,000	1	145,091	6	930,000
160,001 » 180,000	1	175,000	—	—
180,001 » 200,000	3	596,608	—	—
200,001 » 300,000	2	434,038	1	210,000
300,001 » 400,000	—	—	1	385,000
Arki . . .	248	860,140	—	—
Total . . .	5,769	23,945,968	4,410	20,192,126

TABLE VI — *Distribution among the different mortgages of the mortgages constituted and withdrawn.*

Constitutions of mortgages						Extinctions of mortgages		
			Mortgage Bank of Uruguay	Particulars	Total	Mortgage Bank of Uruguay	Particulars	Total
			Number	Number	Number	Number	Number	Number
100	\$	1 000	62	2 143	2 205	43	1 630	1,673
1,001	"	2 000	88	1,135	1,223	40	889	929
2,001	"	5,000	125	1,051	1 176	66	933	999
5,001	"	10,000	82	408	490	43	421	464
10,001	"	20,000	55	195	250	17	184	201
20,001	"	30,000	19	55	74	6	53	59
30,001	"	50,000	15	47	62	7	36	43
50,001	"	70,000	3	9	12	1	13	14
70,001	"	100,000	8	10	18	2	13	15
100,001	"	140,000	3	1	4	—	5	5
"	140,001	"	3	2	5	—	6	6
"	200,001	"	1	1	2	—	2	2
"	400,001	y mas . .	—	—	—	—	—	1
Total			464	5,057	5,521	225	4,185	4,410

TABLE VII. — *Mortgages constituted in 1915. Capital borrowed. Rate and amount of interest.*

Rate of interest %	Number of mortgages	Capital \$	Amount of interest \$	Rate of interest %	Number of mortgages	Capital \$	Amount of interest \$
1 00	1	2,000	20.00	4 80	1	1,000	4.800
1.73	1	130	2.25	5.00	29	306,177	15,30 885
2.00	2	13,200	264 00	5 18	1	463	23.98
2.11	1	1,700	35.87	5.33	1	1,000	53 30
2.80	1	1,500	42.00	5 40	1	200	10.88
3.00	2	3,000	90.00	5 50	2	3,550	195.25
3.90	2	800	31.20	5.60	1	1,500	84.00
4 00	5	50,659	2,026.36	5.65	1	1,060	59.89
4 61	1	10,400	479.44	5 75	1	31,000	1,782.50
4 62	1	2,920	134.90	6.00	358	2,390,417	143,425.02

TABLE VII (continued).—Mortgages constituted in 1915.
Capital borrowed, rate and amount of interest.

Rate of interest %	Number of mort- gages	Capital \$	Amount of interest \$	Rate of interest %	Number of mort- gages	Capital \$	Amount of interest \$
6.09	1	1,978	120.46	7.23	1	530	38.32
6.25	1	400	25.00	7.25	1	10,000	725.00
6.36	1	6,600	419.76	7.30	1	1,200	87.60
6.50	8	62,005	4,030.32	7.34	1	400	29.36
6.51	1	1,750	113.92	7.50	28	187,200	14,040.00
6.52	2	1,300	84.76	7.52	1	2,300	172.96
6.54	1	600	39.24	7.66	1	600	45.96
6.55	1	500	32.75	7.73	1	2,000	154.60
6.60	1	350	23.10	7.75	1	650	50.37
6.62	1	400	26.48	7.80	3	5,300	413.40
6.63	1	120	7.96	7.96	1	3,767	299.85
6.66	1	6,000	399.60	8.00	453	2,292,320	183,385.60
6.68	1	250	16.70	8.10	1	4,000	324.00
6.69	1	650	43.48	8.12	1	6,500	527.80
6.70	4	2,900	194.30	8.16	2	2,100	171.36
6.71	1	500	33.55	8.18	1	5,000	409.00
6.72	1	300	20.16	8.20	2	5,660	464.12
6.73	1	300	20.19	8.25	4	77,100	6,360.75
6.74	1	400	26.96	8.33	1	1,000	83.30
6.76	3	1,100	74.36	8.36	1	300	25.08
6.78	1	250	16.95	8.40	53	92,800	7,795.20
6.79	1	150	10.18	8.50	84	686,954	58,391.09
6.85	3	1,350	92.47	8.52	1	3,000	255.60
6.86	1	2,500	171.50	8.57	2	2,800	239.96
6.88	1	300	20.64	8.60	1	2,050	176.30
6.95	2	1,000	69.50	8.64	1	5,000	432.00
6.96	1	300	20.88	8.72	2	2,200	191.84
7.00	315	4,464,535	312,517.45	8.75	4	88,100	7,708.75
7.06	1	800	56.48	8.78	1	8,200	719.96
7.11	1	500	35.55	8.80	2	4,500	396.00
7.13	1	800	57.04	8.82	1	1,700	149.94
7.17	1	1,500	107.55	9.00	888	4,671,696	420,452.64
7.20	22	42,495	3,059.64	9.10	1	2,500	227.50
7.21	1	550	39.65	9.20	1	1,500	138.00
7.22	3	5,600	404.32	9.23	3	3,900	359.97

TABLE VII (continued). — Mortgages constituted in 1915.
Capital borrowed, rate and amount of interest.

Rate of interest %	Number of mort- gages	Capital \$	Amount of interest \$	Rate of interest %	Number of mort- gages	Capital \$	Amount of interest \$
9.25	5	73,300	6,780.25	11.65	1	309	35.99
9.33	1	3,600	335.88	12.00	1,600	2,025,484	243,058.08
9.36	2	4,100	383.76	12.02	1	1,500	180.30
9.40	1	3,700	347.80	12.50	1	200	25.00
9.48	1	1,900	180.12	13.00	1	300	39.00
9.50	43	285,620	27,133.90	13.40	1	800	107.20
9.60	140	205,897	19,766.09	13.50	2	650	87.75
9.70	2	1,900	184.30	14.08	1	1,000	50.80
9.74	1	3,700	360.38	14.40	8	8,575	1,234.80
9.75	1	800	78.00	14.56	1	412	59.99
9.81	1	550	53.95	15.00	6	6,700	1,005.00
9.90	1	412	40.79	16.00	1	150	24.00
10.00	639	2,304,355	230,435.50	17.14	3	2,100	359.94
10.02	1	2,000	200.40	18.00	18	11,188	2,013.84
10.08	1	500	50.40	20.00	3	1,658	331.60
10.10	1	700	70.70	20.40	1	1,000	204.00
10.20	15	33,900	3,457.80	20.80	1	2,500	520.00
10.28	1	3,500	359.80	24.00	8	2,350	564.00
10.29	1	1,400	144.06	31.68	1	550	174.24
10.34	1	580	59.97	36.00	2	550	198.00
10.40	4	18,000	1,872.00	60.00	1	600	360.00
10.50	3	3,200	336.00				
10.80	91	145,225	15,684.30				
10.90	1	2,200	239.80	Aggregate . .	216	565,484	—
11.00	42	136,394	15,003.34	Without inte- rest	281	1,584,458	—
11.04	2	1,000	110.40				
11.07	1	650	71.95		5-521	23,085,828	1,767,473.24
11.14	1	1,400	155.96	Add	—	860,140	—
11.32	2	742	83.99				
11.40	3	2,850	324.90				
11.48	1	4,700	539.56		—	23,945,968	—

TABLE VIII — *Term of mortgage investments
made in 1915.*

Number of mortgages			Number of mortgages		
Term		Value	Term		Value
		\$			\$
1 year	1 433	3,004,138	8 months	2	600
2 years	1 569	5,115 407	9 "	5	12 533
3	787	3 475,800	10	2	1 316
4 "	409	1,705,706	15 "	4	13 945
5	369	1,351,034	18 "	47	67,682
6	60	439 864	30	9	26,461
7	10	28 042	32	1	2 503
8	10	181 089	42	3	1,550
9	40	111 411	45	1	2 040
10	68	220,355	54 "	1	15,000
12	1	1 000	78 "	1	7 200
13 "	1	61,800	80 "	1	802
15 "	8	43,250	Undetermined		
30	519	5,691,567	period	109	700 685
1 month	2	3,400			
2 "	1	1,854			
3 "	4	11 424	Total	5,521	23 085,828
4 "	1	836	Add		860,140
5	4	1 012			
6 "	28	176,888			
7 "	2	7,634			23,945,968

TABLE IX. — *Extinction of mortgages in 1915.*

Year of entry	Montevideo		Other departments		Total	
	Number	Value	Number	Value	Number	Value
		\$		\$		\$
1874	—	—	1	2,000.00	1	2,000.00
1885	—	—	1	1,000.00	1	1,000.00
1886	1	2,400.00	—	—	1	2,400.00
1887	1	1,500.00	—	—	1	1,500.00
1889	2	30,300.00	—	—	2	30,300.00
1890	1	1,410.74	—	—	1	1,410.74
1891	2	2,600.00	2	8,770.87	4	11,370.87
1892	3	12,300.00	1	9,000.00	4	21,300.00
1893	1	600.00	4	32,118.00	5	32,718.00
1894	—	—	1	314.00	1	314.00
1896	5	13,900.00	2	20,500.00	7	34,400.00
1897	4	5,000.00	—	—	4	5,000.00
1898	2	3,200.00	5	34,650.00	7	37,850.00
1899	2	2,600.00	3	26,000.00	5	5,200.00
1900	5	5,373.00	2	14,700.00	7	20,073.00
1901	4	7,400.00	8	13,450.00	12	20,850.00
1902	5	6,575.57	4	18,670.00	9	25,245.57
1903	5	11,750.00	9	51,300.00	14	63,050.00
1904	7	8,000.00	5	18,800.00	12	26,800.00
1905	23	91,548.89	14	135,610.00	37	227,194.89
1906	19	70,600.00	31	135,237.00	50	205,837.00
1907	30	77,840.50	18	185,500.00	48	263,340.50
1908	31	372,248.12	56	301,853.50	87	674,101.62
1909	76	198,008.64	84	338,258.62	160	536,267.26
1910	159	890,290.84	172	1,070,709.01	331	1,960,999.85
1911	242	897,669.60	252	1,615,694.61	494	2,513,364.23
1912	351	1,426,674.25	408	2,414,602.31	759	3,841,276.56
1913	570	2,102,946.96	537	2,497,406.25	1,107	4,600,353.21
1914	531	1,973,255.27	461	2,106,811.66	992	4,080,066.93
1915	152	607,879.06	95	338,663.00	247	946,542.06
Total	2,234	8,823,907.46	2,176	11,368,218.83	4,410	20,192,126.29

TABLE X - *Constitutions of mortgages from 1909 to 1915.*

Year	Mortgage Bank of Uruguay			Individuals and others			TOTAL		
	Number of mortgages	Number of properties	Value \$	Number of mortgages	Number of properties	Value \$	Number of mortgages	Number of properties	Percentage of total formed by amounts in first category
<i>Constitutions of mortgages from 1909 to 1915</i>									
1909	306	351	3,391,300	4,293	5,689	17,082,566	4,599	6,040	20,473,866 16.56
1910	460	566	5,658,100	4,968	6,529	21,737,498	5,428	7,037	27,395,598 20.65
1911	551	579	7,241,200	5,914	7,690	28,562,772	6,465	8,539	35,803,972 20.22
1912	613	634	9,104,600	6,042	8,261	29,013,952	6,055	8,895	38,118,552 23.88
1913	450	531	6,200,000	6,513	8,914	32,039,463	6,963	9,415	38,293,463 16.19
1914	440	591	4,834,200	5,984	7,709	27,004,924	6,424	8,300	31,839,124 15.18
1915	464	618	5,251,200	5,037	6,485	18,694,767	5,521	7,133	23,945,968 21.92
<i>Functions of mortgages from 1909 to 1915</i>									
1909	62	62	447,100	3,247	4,287	13,251,998	4,349	4,349	13,699,098 3.26
1910	124	130	1,318,300	3,990	5,321	14,072,851	4,114	5,457	15,391,151 8.56
1911	178	194	1,728,000	3,948	4,981	15,333,282	4,126	5,175	17,061,282 10.13
1912	162	176	2,002,169	3,905	4,805	14,242,423	4,067	4,981	16,251,592 12.36
1913	156	161	1,615,270	4,074	5,246	19,399,873	4,230	5,407	22,015,143 7.68
1914	228	336	1,504,600	3,405	4,254	13,819,838	3,633	4,590	15,324,438 9.81
1915	225	270	1,490,100	4,185	5,110	18,702,026	4,410	5,380	20,192,216 7.37

TABLE XI. — *Abridged table showing the situation with regard to mortgages from 1887 to 1895.*

Year	Constitutions of mortgages				Extinctions of mortgages			
	Number of mortgages	Average value	Number of properties	Average value	Total value	Number of mortgages	Average value	Number of properties
		\$		\$	\$		\$	
1887	—	—	—	—	(c)	—	—	—
1888	—	—	—	—	4,561,979	—	—	—
1889	—	—	2,495	5,125.71	12,788,660	—	—	—
1890	—	—	3,590	8,822.20	27,821,673	—	—	—
1891	—	—	3,990	5,656.48	22,569,360	—	—	—
1892	—	—	3,976	3,066.90	12,545,853	—	—	—
1893	—	—	3,791	2,413.70	7,709,671	—	—	—
1894	—	—	2,848	2,393.80	6,833,518	—	—	—
1895	—	—	2,497	2,434.38	6,078,639	—	—	—
1896	—	—	2,449	2,494.43	5,695,977	—	—	—
1897	—	—	2,359	2,493.04	5,495,888	—	—	—
1898	—	—	2,460	2,504.36	6,166,782	—	—	—
1899	—	—	2,634	2,688.69	5,501,610	—	—	—
1900	—	—	2,466	2,375.43	5,843,570	—	—	—
1901	—	—	2,738	2,406.08	6,597,865	—	—	—
1902	—	—	3,071	2,149.10	6,598,894	—	—	—
1903	—	—	3,124	2,455.18	7,670,000	—	—	—
1904	1,767	3,662.85	3,100	2,724.83	8,447,000	—	—	—
1905	2,744	3,770.92	2,451	2,670.55	6,545,321	1,396	3,145.39	2,092
1906	2,979	4,337.44	3,883	2,867.02	10,347,454	2,707	3,519.56	2,358
1907	3,238	4,365.86	4,004	3,220.50	12,021,062	2,465	3,493.73	2,358
1908	3,959	4,486.63	4,796	3,553.43	14,784,322	2,355	3,795.53	1,884
1909	4,599	4,452.72	5,234	3,393.69	17,452,578	2,782	3,211.50	2,691
1910	5,428	5,162.08	6,040	3,869.21	20,373,866	3,399	4,189.05	2,350
1911	6,465	5,358.12	7,937	3,863.07	27,753,598	4,114	3,741.26	3,449
1912	6,635	5,727.78	8,239	4,102.99	33,863,972	4,126	4,135.06	3,449
1913	6,993	5,499.56	8,955	4,285.59	38,136,532	4,067	3,993.96	3,449
1914	6,424	4,956.28	9,445	4,054.36	38,295,463	4,067	4,068.12	3,449
1915	5,521	4,537.45	8,300	3,956.04	31,639,124	3,633	4,418.12	3,449
			7,133	3,337.06	23,945,968	4,410	4,576.71	5,380

(c) This value is for the second half of 1887. — (d) From 1910 onwards the data do not include prorogations, substitutions, guarantees and mortgages on ships. Increases are taken into account only in so far as their value is concerned. — (e) The figures exclude current accounts, guarantees, renewals of mortgages, mortgages on ships, cessations, constructions, reductions and entireties, life rents, substitutions, transcriptions and mortgage bonds.

TABLE XII. — *Mortgage loans granted by the Bank of Uruguay from 31 March 1911 to 31 March 1916.*

		Value of security	Loans granted	%
		\$	\$	
In force on 31 March.	1911	24,048,291.70	11,992,905.91	49.87
" " " " "	1912	35,742,634.32	17,782,085.43	49.75
" " " " "	1913	—	25,227,753.57	—
" " " " "	1914	63,644,354.63	29,356,442.15	46.12
" " " " "	1915	69,479,460.95	31,361,725.13	45.13
" " " " "	1916	77,057,465.08	34,145,213.09	44.31

TABLE XIII. — *Loans granted by the Bank of Uruguay in mortgage titles as shown by the balance-sheet of 31 March 1916.*

Mortgages		Value of security	Loans granted	%
Urban mortgages, series E		1,984,239.38	751,298.40	37.86
Rural " " " "		1,385,853.22	607,563.58	43.84
Urban and rural mortgages, series E		3,370,092.60	1,358,861.98	40.32
Urban mortgages, series F		1,120,377.14	508,376.61	45.38
Rural " " " "		1,840,901.47	937,212.12	50.91
Urban and rural mortgages, series F		2,961,278.61	1,445,588.73	
Urban mortgages, series G		1,221,946.61	543,360.48	44.47
Rural " " " "		1,995,365.27	1,124,773.83	56.37
Urban and rural mortgages, series G		3,217,311.88	1,668,134.31	51.85
Urban mortgages, series H		2,105,420.74	962,123.07	45.70
Rural " " " "		1,682,181.63	840,641.97	49.94
Urban and rural mortgages, series H		3,788,602.37	1,802,765.04	47.58
Urban mortgages, series I		1,507,510.26	737,335.15	48.92
Rural " " " "		1,938,923.09	1,024,117.70	52.82
Urban and rural mortgages, series I		3,446,433.35	1,761,452.85	51.11
Urban mortgages, series J		1,915,862.54	833,489.68	43.50
Rural " " " "		3,002,756.12	1,517,674.36	50.54
Urban and rural mortgages, series J		4,918,618.66	2,351,164.04	47.80
Urban mortgages, series K		1,576,040.61	774,271.20	49.13
Rural " " " "		2,251,598.81	1,199,805.80	53.29
Urban and rural mortgages, series K		3,827,639.42	1,974,167.00	51.58
Urban mortgages, series L		1,682,464.08	797,583.86	47.41
Rural " " " "		3,113,838.78	1,647,659.06	52.91
Urban and rural mortgages, series L		4,796,302.86	2,445,242.92	50.98
Urban mortgages, series M		2,610,444.76	1,113,791.69	42.67
Rural " " " "		7,433,952.00	3,055,159.17	41.10
Urban and rural mortgages, series M		10,044,396.76	4,168,950.86	41.51
Urban mortgages, series N		4,984,134.34	2,167,257.50	43.48
Rural " " " "		4,899,569.30	2,054,739.41	41.94
Urban and rural mortgages, series N		7,883,703.64	4,221,996.91	42.72
Urban mortgages, series O		4,596,876.35	1,971,481.98	42.89
Rural " " " "		6,253,914.66	2,420,378.58	38.70
Urban and rural mortgages, series O		10,850,791.01	4,391,860.56	40.48
Urban mortgages, series P		4,015,981.84	1,660,962.15	41.36
Rural " " " "		7,328,665.40	3,129,760.87	42.71
Urban and rural mortgages, series P		11,344,647.24	4,790,723.02	42.23
Urban mortgages, series Q		1,416,400.33	521,992.74	36.85
Rural " " " "		2,890,554.22	1,210,800.00	41.89
Urban and rural mortgages, series Q		4,306,954.55	1,732,792.74	40.23

TABLE XIV — Assets of the Mortgage Bank of Uruguay from 1908 to 1916 (on 31 March of each year)

Classification	1908	1909	1910	1911	1912	1913	1914	1915	1916
Company's capital social	—	—	—	—	—	—	—	—	—
Public debt as security	3,127,100	3,052,200	2,974,300	2,893,200	2,809,000	2,721,300	2,630,200	2,630,200	1,296,171
Paper payable to bearer	—	—	1,521,000	1,521,000	1,521,000	1,521,000	1,521,000	1,521,000	2,610,200
Properties	5,170,232	4,354,685	2,645,419	1,955,373	634,458	670,821	706,034	946,032	1,704,117
Notes of hand and mortgage titles bought and provisional bonds	450,022	166,835	299,180	238,613	128,775	—	—	—	—
In hand	77,124	157,268	132,374	309,057	300,614	295,387	371,377	173,234	224,557
Current commission accounts	—	—	8,133	—	—	—	—	—	—
Various securities	200	5,114	41,000	81,958	205,700	241,000	143,000	129,490	99,457
Furniture	4,196	3,383	3,819	9,106	13,774	25,090	26,881	25,658	26,250
Mortgage loans	3,087,057	5,024,042	9,032,118	11,992,906	17,782,085	25,227,754	29,350,442	31,361,722	31,145,213
Weekly payments	48,202	57,404	114,984	213,222	445,984	618,733	864,636	1,326,626	1,508,733
Sales of properties to be paid for by instalments	335,889	545,365	633,600	518,100	731,558	630,779	574,834	535,571	435,827
Bonds to be recovered	3,533	316,347	326,654	318,771	249,120	200,604	163,674	107,060	—
Loans fallen due and not recovered	—	—	—	—	—	—	—	—	—
Various debtors	93,359	79,603	—	—	—	—	—	—	—
Secured by buildings	1,579	45,688	106,390	86,160	137,438	119,996	53,650	19,066	58,887
Liquidation of properties	4,500	37,300	—	—	—	—	—	—	—
Profits and loss, provisional account	—	—	—	1,517,183	1,610,310	1,581,857	1,524,748	1,315,446	580,339
Foreign correspondents	38,135	—	—	70,060	141,960	—	—	—	—
	—	—	—	—	—	—	113,493	206,189	60,666
Mortgaged properties (value as security)	12,441,128	13,845,234	17,836,971	20,826,189	26,711,776	33,860,321	38,049,969	40,297,894	42,810,417
Deposited securities	6,486,510	10,395,433	17,721,682	24,018,292	35,712,634	52,519,206	63,644,355	69,479,461	77,057,465
	450,800	431,000	516,040	562,440	454,710	500,640	552,600	1,293,200	1,647,700
TOTAL	19,378,438	24,674,667	36,106,693	15,436,921	62,009,150	86,910,167	102,216,924	111,070,555	121,595,582

TABLE XV

Liabilities of the Mortgage Bank of Uruguay from 1908 to 1916 (on 31 March of each year)

Classification	1908	1909	1910	1911	1912	1913	1914	1915	1916
Capital	5,070,000	5,070,000	3,549,000	3,549,000	3,549,000	3,549,000	3,549,000	3,569,000	5,000,000
Notes of hand and mortgage titles	6,724,700	8,156,500	11,920,500	14,684,400	20,060,500	27,139,900	21,550,500	33,566,800	36,390,800
Issue of mortgage titles series E	44,736	61,112	—	—	—	—	—	—	—
" " coupons, notes of hand and	—	—	—	—	—	—	—	—	—
titles	17,211	28,541	202,282	229,293	313,369	375,914	498,851	763,653	659,508
Bonds to be paid	481,600	233,500	—	—	—	100,000	100,000	—	—
Current accounts (1)	8,533	51,033	51,033	51,033	37,533	26,533	18,033	12,307	—
Provisional bonds in circulation	62,218	54,453	—	—	—	—	—	—	—
Bank of the Republic	—	—	—	—	—	—	—	—	—
Spanish Bank of the Ríode la Plata	—	3,943	—	—	—	—	—	—	—
Deposits of building loans	4,540	37,559	45,536	92,076	207,148	242,263	135,063	125,413	60,663
Properties bought, liquidation . . .	27,019	120,830	—	—	—	—	—	—	—
Profit and loss	—	15,441	190,235	213,535	247,488	300,620	396,853	400,698	407,343
Various creditors	571	11,001	318,092	355,818	423,550	60,778	9,474	6,324	53,491
Provisional half-yearly dividend	—	—	12,492	—	—	—	—	—	—
Reserve fund	—	—	—	24,061	14,112	76,193	104,264	138,163	—
Salaries and pensions of the staff	—	—	—	3,609	4,407	4,419	3,230	751	—
Guarantees, rents and instalments	—	—	—	—	—	—	—	—	—
payable on purchases	—	523	28,801	85,000	—	—	—	—	—
Redeemable paper payable to	—	—	—	—	—	—	—	—	—
bearer	—	—	1,521,000	1,521,000	1,521,000	1,521,000	1,521,000	1,521,000	—
Tax and honoraria	—	498	—	—	—	—	—	—	—
Profits in course of realization . .	—	—	—	—	—	—	—	—	—
Current accounts	—	—	—	218,268	163,701	163,701	163,701	163,785	163,785
Thrift fund	—	—	—	17,334	—	—	—	50,000	—
Real estate reserve:	—	—	—	—	—	—	—	—	50,000
Reserve for risks of loans made . .	—	—	—	—	—	—	—	—	44,827
Mortgaged properties (value as	12,441,128	13,845,234	17,838,971	20,866,189	26,711,776	33,860,391	38,049,969	40,297,394	42,890,417
securities)	6,486,510	10,395,433	17,721,682	24,048,292	35,742,635	52,549,206	63,644,355	69,479,461	77,057,465
Deposited securities	450,800	434,000	516,040	562,440	454,740	500,640	552,600	1,293,200	1,647,700
TOTAL	19,378,438	24,674,667	36,106,693	45,436,921	62,909,150	86,910,167	102,246,924	111,070,555	121,595,582

TABLE XVI — Profit and Loss Account of Mortgage Bank of Uruguay Credit account, from 1918 to 1916

Description	Credit account										MORTGAGE CREDIT	
	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Balance of previous year. . .	—	—	—	896.66	13,025.99	6,878.24	19,908	7,870	4,032	—	—	—
Receipts from sales by cancelled instalments	527.20	520	865.00	548.86	1,021.20	169.76	—	—	—	—	—	—
Half-yearly redemptions of notes of hand and mortgage titles . .	10,619.55	9,579	4,910.71	4,992.53	7,843	13,808.68	29,845	64,635	71,817	—	—	—
Interest on guarantee debt . . .	127,244.00	124,335	121,309.00	118,161.00	114,886	111,143.00	107,941	105,208	105,208	—	—	—
Int. on mortgage contract . . .	168,393.71	233,046	395,570.72	637,123.02	913,595	1,289,038.63	1,814,240	2,934,819	2,934,819	—	—	—
Rights of administration . . .	27,900.15	38,878	66,029.03	103,115.19	149,338	213,338.24	272,172	297,988	281,708	—	—	—
Commission on extinction . . .	1,776.00	2,956	4,290.00	11,465.00	8,283	10,001.00	9,163	11,388	10,865	—	—	—
Overdue interest	586.04	978	—	1,112.07	3,407	9,071.74	18,131	31,776	52,243	—	—	—
Rents	55,661.27	56,093	66,791.43	61,256.55	10,773	21,229.85	28,450	28,653	48,882	—	—	—
Guarantees of instalment sales	—	—	—	—	—	17.00	—	—	—	—	—	—
Current profit and loss . . .	200.60	—	—	—	63,251	54,567.06	—	—	—	—	—	—
Co. of Commercial Exchange, Ltd	—	16,256.88	6,701.15	—	—	26,831.00	30,009	27,711	29,571	—	—	—
Interest and brokerage . . .	—	—	—	—	—	—	—	—	—	—	—	—
Credit passed to profit and loss account and recovered . . .	—	—	100.00	—	—	661.99	141	—	—	—	—	—
Profits on purchase of notes of hand and mortgage titles . .	—	—	3,743.41	6,026.41	23,893	9,035.33	—	—	—	—	—	—
Liquidation of bought properties	—	—	8,252.51	176,991.23	—	—	—	—	—	—	—	—
Commission on instalment, sales	—	—	397.11	1,307.40	1,900	1,317.89	1,029	602	—	—	—	—
Interest and commission on Villa Muñoz	—	—	—	6,995.40	87,881	109,583.97	106,783	68,953	46,908	—	—	—
Profits on exchange	—	—	—	—	91	535.70	—	—	2,175	—	—	—
Thrift fund, instalment sal	—	—	—	—	—	4,796.61	—	—	—	—	—	—
Current interest	—	—	—	—	—	—	—	—	8,807	—	—	—
Cost of documents	—	—	—	—	—	—	—	—	7,189	—	—	—
Miscellaneous	—	—	—	—	—	—	—	—	39,625	—	—	—
TOTAL	392,909.92	482,744.07	78,660.50	1,129,991.32	1,405,192	1,882,395.69	2,211,902	2,459,152	—	—	—	—

TABLE XVII. — *Profit and Loss Account of Mortgage Bank of Uruguay, from 1908 to 1916**Debit account*

Classification	1908	1909	1910	1911	1912	1913	1914	1915	1916
Printing of mortgage titles series E	\$ 122.03	\$ 983.53	—	—	—	—	—	—	\$ —
Int. on notes of hand & mort. lti	319,075.79	365,871.22	519,039.50	807,549.95	1,047,145.63	1,416,607.62	1,735,994	1,942,207	2,112,936
Salaries and wages of staff.	26,235.00	28,625.00	—	—	—	—	—	—	—
General costs	5,722.78	8,579.48	55,203.14	57,498.75	68,681.51	70,711.19	84,640	65,298	104,207
Legal costs	99.17	492.05	—	—	—	—	—	—	—
Furniture	169.10	178.07	201.01	505.17	721.03	2,787.84	2,987	2,851	2,917
Costs of brokerage on loans .	1,547.14	4,705.08	6,934.34	—	—	16,534.63	5,314	4,376	5,872
Cost of sales for terms . . .	4,139.19	9,624.72	—	33,035.31	6,581.28	—	—	—	—
Various debtors	—	—	208.05	—	—	—	—	—	—
Interest and brokerage . . .	6,414.79	—	—	10,208.45	13,753.78	—	—	—	—
Debtors (deferred)	—	4,491.60	7,918.01	7,658.77	10,811.21	56,308.69	—	—	—
Bonds to be covered	—	2,607.65	646.70	—	—	119.81	2,000	—	—
Land contribution	—	—	—	—	10,002.69	4,818.04	7,125	6,637	11,507
Properties bought	—	—	—	—	—	13,887.92	3,501	514	13,519
D'ff. in exch. and comm. on busin	—	—	7,244.19	—	—	—	1,542	2,750	—
Purchase of mortgage titles .	—	666.92	—	—	—	—	—	—	—
Loans in notes of hand . . .	—	2,342.29	—	—	—	—	—	—	—
Profits during the year . . .	29,384.03	53,576.46	190,235.26	213,534.49	247,488.40	300,619.95	306,854	400,698	467,343
Personal credit by deficit	—	—	—	—	—	—	1,945	13,821	—
Credit current	—	—	—	—	—	—	—	—	6,807
Real estate of the bank . . .	—	—	—	—	—	—	—	—	18,741
TOTAL	392,909.92	482,744.07	787,660.50	1,129,991.32	1,405,192.40	1,882,395.69	2,241,902	2,459,152	2,743,849

TABLE XVIII — Profit and Loss from 1803 to 1916 — Position on 31 March of each year

Year	Interest on mortgages	Profits on redemptions	Commission on extinction	Rights of administration	Deferred interest	Rents	Total gross profits	Interest on notes of hand and titles issued	General costs	Liquid profits	Observations
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
1803	154,648	85,593	25,989	23,323	32,696	—	569,848	408,963	43,609	41,182	—
1804	183,871	70,697	50,638	26,103	103,060	—	523,374	340,232	42,405	73,202	—
1805	303,729	56,829	15,175	42,152	110,980	—	836,613	315,619	40,603	48,434	—
1806	641,505	50,811	29,011	08,085	353,052	—	2,077,555	200,093	41,458	61,282	—
1807	579,775	34,300	1,368	84,271	430,468	—	1,348,319	265,790	41,170	24,432	—
1808	1,074,192	37,123	3,285	149,454	870,437	—	2,387,182	254,901	41,537	24,436	—
1809	35,630	33,890	2,504	4,080	20,511	—	344,481	237,792	38,152	9,391	—
1800	29,187	30,664	2,429	3,926	6,036	—	286,748	217,695	37,677	859	—
1801	18,945	26,831	246	3,205	—	33,949	247,556	209,310	33,056	136	—
1802	102,846	23,089	—	15,936	—	29,968	317,344	199,727	30,830	11,994	—
1803	5,897	21,145	(1) 718	1,071	—	27,209	286,329	193,845	29,141	544	—
1804	5,574	20,056	—	1,017	—	31,951	197,983	187,239	28,522	22,163	—
1805	5,815	16,468	—	1,112	13	34,461	193,958	181,619	27,301	17,728	—
1806	24,602	9,453	146	3,886	9	35,946	207,422	192,852	29,972	22,639	—
1807	96,681	6,198	1,021	16,433	43	44,883	299,111	257,515	31,771	4,444	—
1808	168,396	10,620	1,776	27,900	580	55,661	392,910	319,076	32,180	29,384	—
1809	233,046	9,679	2,956	36,878	979	56,093	—	365,871	38,680	53,576	—
1810	395,571	4,911	4,290	66,020	—	66,791	787,660	519,039	55,203	190,235	—
1811	637,123	4,993	11,465	103,115	1,112	61,257	1,129,991	807,550	57,499	213,534	—
1812	913,596	7,844	8,283	149,338	3,407	16,774	1,405,192	1,047,146	68,682	247,488	—
1813	1,289,039	13,809	10,001	213,368	9,072	21,230	1,882,396	1,416,608	70,711	300,620	—
1814	1,618,240	29,845	9,103	272,172	18,131	28,450	2,241,902	1,735,994	84,640	396,853	—
1815	1,814,368	64,635	11,388	297,988	31,776	28,653	2,459,152	1,942,207	85,208	400,698	—
1816	2,034,819	71,817	10,865	281,708	52,243	48,882	2,743,849	2,112,936	104,207	467,343	—

(1) Including deferred interest

Part IV: Agricultural Economy in General

SPAIN.

THE PROBLEM OF PROVISIONING AND THE POLICY WITH REGARD TO THE FOOD SUPPLY.

SOURCES :

- POLÍTICA NACIONAL DE SUBSISTENCIAS. Apuntes por el Conde de Colomblí, Comisario General I. Creación y orientaciones de la Comisaría. — II. Organización y estadísticas. — III. Gráficos. — Comisaría General de Abastecimientos. (*National Alimentary Policy. Notes of Count di Colomblí, General Commissioner. — I. Formation and Direction of the Commissariat. — II Organization and Statistics. — III Graphs. — General Commissariat of the Food Supply*). Madrid October 1917.
- LEY RELATIVA A LAS SUBSISTENCIAS (*Law as to the Food Supply*). Gaceta de Madrid, No. 320. Madrid, 15 November 1916.
- REAL DECRETO CREANDO UNA JUNTA CENTRAL DE SUBSISTENCIAS Y UN COMITÉ EJECUTIVO (*Royal Decree forming a Central Food Supply Committee and an Executive Committee*). Gaceta de Madrid, No. 320. Madrid, 15 November 1916.
- REAL DECRETO APROBANDO, CON CARÁCTER PROVISIONAL, EL REGLAMENTO PARA LA EJECUCIÓN DE LA LEY LLAMADA DE SUBSISTENCIAS (*Royal Decree provisionally approving the Rules for the Application of the Law as to the Food Supply*). Gaceta de Madrid, No 330. Madrid, 25 November 1916.
- REAL ORDEN DISPONIENDO SE CONSTITUYA UNA COMISIÓN ESPECIAL DE ABASTECIMIENTO (*Royal orders providing for the constitution of a special provisioning committee*). Gaceta de Madrid, No. 38. Madrid, 7 February 1917.
- LEY LLAMADA DE AUTORIZACIONES (*Law called Authorization Law*). Gaceta de Madrid, No. 62. Madrid, 3 March 1917.
- REAL ORDEN RELATIVO A LA ORGANIZACIÓN DE UN COMITÉ DE TRANSPORTES POR FERROCARRIL (*Royal Order as to the Organization of a Railway Transport Committee*). Gaceta de Madrid, No. 117. Madrid, 27 April 1917.
- REAL ORDEN DICTANDO REGLAS ENCAMINADAS A QUE EL SUMINISTRO DE CARBÓN A LOS GRANDES CENTROS DE CONSUMO TENGA LUGAR DE MODO REGULAR Y CONTINUO (*Royal Order providing for the Regular and Continuous Supply of Coal to the Great Consuming Centres*). Gaceta de Madrid, No. 117. Madrid, 27 April 1917.
- REAL DECRETO REORGANIZANDO DEFINITIVAMENTE EN LA FORMA QUE SE PUBLICA LA COMISIÓN PROTECTORA DE LA PRODUCCIÓN NACIONAL (*Royal Decree definitely reorganizing the Committee for the Protection of National Production*). Gaceta de Madrid, No. 136. Madrid, 16 May 1917.
- REAL DECRETO DISOLVIENDO LA JUNTA CENTRAL DE SUBSISTENCIAS Y EL COMITÉ EJECUTIVO DE LA MISMA (*Royal Decree Dissolving the Central Food Supply Committee and its Executive Committee*) Gaceta de Madrid, No 121. Madrid, 1 May 1917.
- REAL ORDEN CREANDO EN LA DIRECCIÓN DE AGRICULTURA MINAS Y MONTES UN COMITÉ INFORMATIVO DE PRODUCCIONES AGRÍCOLAS (*Royal Order constituting a Committee of Informa-*

ation on agricultural Production for the Direction of Agriculture Mining and Forestry). Gaceta de Madrid, No. 227. Madrid, 15 August 1917.

REAL DECRETO CREANDO UNA COMISARÍA GENERAL DE ABASTECIMIENTOS ENCARGADA DE ATENDER AL ABASTECIMIENTO Y DISTRIBUCIÓN INTERIORES DE SUBSTANCIAS ALIMENTICIAS ASÍ COMO A LA COMPRA DE TRIGOS EN EL EXTRANJERO Y LA REGULACIÓN DE PRECIOS Y RESTRICCIÓN DEL CONSUMO (*Royal Decree constituting a General Commissariat for Provisioning charged to provide for the Supply and Distribution of the Domestic Food Supply, the Purchase abroad of Cereals, the Regulation of Prices and the Restriction of Consumption*). Gaceta de Madrid, No. 277. Madrid 4 October 1917.

REAL DECRETO AMPLIANDO EN TRES MILLONES DE PESETAS COMO MÁXIMUM EL CRÉDITO CONCEDIDO RELATIVO A ANTICIPOS REINTEGRABLES A LOS AGRICULTORES (*Royal Decree increasing to Three Million Pesetas the Maximum Credit granted to allow Repayable Advances to be made to Farmers*) Gaceta de Madrid, No. 355 Madrid, 21 December 1917.

REAL ORDEN FIJANDO EL PRECIO MÁXIMO DE VENTA DEL TRIGO DE LA HARINA Y DEL PAN (*Royal Order fixing maximum Prices for Corn, Flour and Bread*). Gaceta de Madrid. Madrid, 8 March 1918.

REAL ORDEN FIJANDO EL PRECIO MÁXIMO DE VENTAS DEL ARROZ SIN CASCÁRA (*Royal Order fixing a Maximum Price for Cleaved Rice*). Gaceta de Madrid, Madrid, 9 March 1918.

REAL DECRETO DISPONIENDO QUE EL COMISARIO GENERAL DE ABASTECIMIENTO EJERZA, POR DELEGACIÓN DEL GOBIERNO, CUANTAS FACULTADES CONFIERE A ESTE LA LEY DE 11 DE NOVIEMBRE DE 1916 A FIN DE ATENDER AL ABASTECIMIENTO Y DISTRIBUCIÓN DE SUBSTANCIAS Y MATERIAS INDISPENSABLES PARA LA VIDA ECONÓMICA DEL PAÍS (*Decree providing that the General Commissioner of Provisioning shall exercise, as delegated by the Government, all powers conferred on him by the law of 11 November 1916 and thus provide for the supply and distribution of goods and material indispensable to the economic life of the country*). Madrid, 30 March, 1918.

REAL ORDER COSTITUENDO UN COMITÉ TITULADO FEDERACION ARROCERA (*Royal order constituting a Committee to be called the Federation for Rice Cultivation*). Gaceta de Madrid, Madrid, 1 March 1918

REAL DECRETO DISPONIENDO QUEDE AFECTA LA TOTALIDAD DE LA MARINA MERCANTE ESPAÑOLA PARA LA REALIZACIÓN DEL TRÁFICO MARÍTIMO EN EL TRANSPORTE DE AQUELLAS MATERIAS CUYA IMPORTACIÓN, CIRCULACIÓN, O EXPORTACIÓN JUZGUE EL GOBIERNO INDISPENSABLES PARA LA ECONOMÍA NACIONAL EN LAS ACTUALES CIRCUNSTANCIAS (*Royal Decree providing that the whole Spanish Merchant Navy shall be employed to transport goods of which the government judges the importation, circulation or exportation to be at the present time indispensable to the national economy*). Gaceta de Madrid, No. 152. Madrid, 1 June 1918.

§ 1. INTRODUCTION.

Does the food supply constitute a problem in Spain? This is the question asked by the provisioning commissariat towards the end of its recent report. "If", the report continues, "some other European countries were to examine our present position and compare it with their own they would doubtless state that this problem did not exist for us. They would add that Spain is a privileged country, the only country which has in these years of universal horror and privation enjoyed an enviable domestic prosperity. They would say that in Spain oil is plentiful as are rice, beans, lentils, potatoes, rye, fruit, fresh vegetables and fruit, that the supply of corn is sufficient, and that the substances of which, like coal, manure and cotton,

there is a lack at home have been obtained in foreign markets in quantities which not only cover the deficit but are also more than sufficient to meet the need. All this would be no more than a repetition of what has been said hitherto, that it is not the food supply but rather the matter of State interference therewith which constitutes a problem in Spain".

The provisioning commissariat maintains on the other hand that the problem exists and even is somewhat acute. It arises not out of a deficient domestic production but out of difficult and insufficient means of transport, fraudulent abuses, and a disorganization of the country's markets. These factors produce exaggerated changes in prices from which the least well-to-do classes suffer most. It may be said, in fine, that the problem is one of distribution rather than of production. Such being the state of affairs, Spanish producers realize profits at the expense of consumers and the balance of economic and social life is severely strained in consequence. If this threat exists, and if day by day it is becoming clearer and more urgent, it must be acknowledged that Spain has indeed, connected with her food supply, a grave problem resultant on the abnormal circumstances which are due to the war.

No discussion of this subject could confirm the existence of this vast problem and give its measure better than exact statistics. Unfortunately an examination of Spanish statistics does not yield all the elements necessary to a study of the problem. The data as to the country's consumption, which would give us material for the needed comparison, are often entirely lacking. They do not exist for all products and sometimes they even include discrepancies.

However the statistics yield the elements necessary to forming an idea, near enough to the truth, of the country's situation, and thus they allow an adequate estimate to be made of the legislative provisions which have been found advisable and which cover, when taken together, all the national policy of Spain in the matter of the food supply.

§ 2. THE CHIEF CAUSES OF THE PROBLEM.

If we had statistical data as to the consumption of articles of the first necessity in Spain, we would need only to compare them with those as to the available stocks in order to determine if there has been provision for the needs of the country, and, if not, the extent of the deficit in the supply. In default of such statistics we must utilize other data and thus reach indirectly, although of course only approximately, our desired end.

To prove the abnormal state of the market for articles of primary necessity, it is enough to give some official half-yearly statistics as to their price which extend from October 1914 to March 1917, and for the sake of greater clearness to compare these with average prices from 1910 to 1914.

TABLE I. — *Price of Some Articles of Primary Necessity before and since the Outbreak of War (in pesetas).*

Articles of primary necessity	Average from 1909 to 1914		Average from October 1914 to March 1915		Average from April 1915 to Sept. 1915		Average from October 1915 to March 1916		Average from April 1916 to Sept. 1916		Average from October 1916 to March 1917	
	Price	Index no.	Price	Index no.	Price	Index no.	Price	Index no.	Price	Index no.	Price	Index no.
Corn bread .kilog	0.37	100.0	0.44	118.9	0.44	118.9	0.46	124.3	0.45	121.6	0.45	121.6
Beef	1.84	100.0	2.10	114.1	2.08	113.0	2.17	117.9	2.26	122.8	2.49	135.3
Mutton . .	1.62	100.0	1.94	119.7	1.93	119.1	2.01	124.0	1.93	119.1	2.24	138.2
Potatoes . .	0.15	100.0	0.21	140.0	0.18	120.0	0.19	126.6	0.18	120.0	0.20	133.3
Peas	0.81	100.0	0.96	118.5	0.91	112.3	1.02	125.9	0.93	114.8	0.89	109.8
Rice	0.58	100.0	0.65	112.0	0.66	113.7	0.69	118.9	0.66	113.7	0.67	115.5
Wine litre	0.37	100.0	0.39	105.4	0.39	105.4	0.47	127.0	0.52	140.5	0.45	121.6
Milk	0.40	100.0	0.44	110.0	0.43	107.5	0.45	112.5	0.45	112.5	0.46	115.0
Oil	1.41	100.0	1.24	87.9	1.25	88.6	1.26	89.3	1.33	96.9	1.39	98.5
Sugar kilog	1.18	100.0	1.01	85.5	1.08	91.5	1.24	105.0	1.31	111.0	1.30	110.1
Eggs doz.	1.13	100.0	1.42	109.2	1.69	130.0	1.43	110.0	1.69	130.0	1.74	133.8
General Ind . . .	100.0		111.0		110.9		116.5		118.4		121.1	

The data in Table I show that there has been, in general, a constant increase in the price of the articles of primary necessity to which they refer, and that at the end of the period considered this increase had reached a maximum, as shown by the index numbers, of 140.5 in the case of wine and 135.3 in that of beef, these numbers being relative to the number 100 which is made equivalent to the average price in the five years, 1908 to 1914, immediately before the war.

This constant and rapid rise in prices, which reached in only thirty months an average of 21 per cent., shows clearly that the market is losing its equilibrium, persistently if not increasingly. In view of the nature of the goods concerned this lack of balance, which resolves itself economically into an excess of demand over supply, can be presumed to be due to one of the following principal causes: 1) an insufficiency of national production; 2) an alteration of the conditions of foreign trade; 3) a defective distribution in the home country of articles of consumption; 4) engrossment on the part of individuals or local institutions; 5) an increase in the cost of production and transport.

We will see which of these causes correspond with the available data. Table II gives the official data for 1914, 1915 and 1916 as to the nation's production of almost all the products occurring in Table I. We compare

them with the data as to the corresponding average production from 1910 to 1914.

TABLE II *Production in Spain of Certain Articles of Primary Necessity in quintals*

Articles of primary necessity	Average 1910-14		1914		1915		1916	
	Production	Index No.	Production	Index No.	Production	Index No.	Production	Index No.
Coin . .	33,977.086	100.0	31,594.489	93.0	37,911.028	111.6	41,457.516	122.8
Rye . .	6,463.462	100.0	6,083.570	94.1	6,630.303	102.6	7,310.998	113.1
Barley .	15,856.503	100.0	15,735.448	99.2	18,019.682	113.6	18,912.418	119.3
Oats	4,135.988	100.0	4,532.620	109.6	5,363.166	129.7	4,668.551	112.9
Rice .	1,980.083	100.0	2,475.820	125.0	2,351.610	118.8	2,417.076	122.1
Maize .	6,941.168	100.0	7,702.929	111.0	7,390.811	106.5	7,275.468	104.8
Potatoes	27,456.228	100.0	20,862.705	76.0	—	—	—	—
Peas . .	896.952	100.0	952.220	106.2	1,048.813	116.9	1,305.124	145.5
Wine .	15,153.735	100.0	16,167.940	106.7	8,780.980	58.0	23,396.067	154.4
Oil .	2,132.960	100.0	2,077.649	97.7	1,362.600	63.9	2,062.010	96.7
General Index No	100.0		101.8		102.1		121.2	

These data would not by themselves account for the general increase of prices shown in Table I. Not only does the increased production of most products largely compensate for the defective production of others in 1914 and 1915, so that the general index numbers of production in those years are 101.8 and 102.4, respectively, as compared to the average for the period from 1910 to 1914. There is the further fact that the index number of the production of all these articles except oil in 1916 varies from the minimum of 104.8, which refers to maize, to the maximum of 154.4, which refers to wine, while the index number referring to the article of which the production was defective is no lower than 96.7. The conclusion is that the lack of balance which we are studying should not be attributed only to insufficient production.

The data referring to foreign trade which appear in Tables III and IV contain elements for the elucidation of the problem of the Spanish food supply. The figures referring to the importation and exportation of articles of primary necessity during the years 1912 and 1913 are not far removed from the averages for the five years immediately preceding the war, but from the date of the outbreak of the war these figures are increasingly modified.

TABLE III *Spanish foreign trade in articles of primary necessity, in quintals*

Articles	Average 1910-1914		1912		1913		1914		1915		1916	
	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion
Corn	1,560,870	5,534	419,006	5,160	1,743,112	4,675	4,226,131	16,321	3,711,214	4,278	3,149,069	22,903
Rye	—	8,425	—	35,877	—	618	—	1,341	—	145	—	321
Barley	121,010	7,156	15,133	32,088	38,225	41,866	114,010	46,142	8,844	405,717	326	455,254
Rice	14,134	97,080	68,380	67,189	190,026	199,655	13,468	152,116	22,147	508,445	33,062	344,293
Maize	2,461,162	12,811	1,740,192	23,128	1,675,817	21,073	2,023,028	8,324	2,016,214	17,370	1,088,568	22,959
Potatoes	437,799	467,499	247,069	467,499	699,476	699,476	—	474,212	—	571,807	—	532,437
Peas	159,629	34,519	247,069	30,753	130,473	30,753	150,811	36,386	41,620	184,000	46,249	59,446
Wine	—	2,747,183	—	2,789,037	—	3,653,400	—	1,846,759	—	1,231,888	—	3,541,813
Oil	—	41,672,456	—	61,697,479	—	9,169,501	—	44,816,733	—	67,570,607	—	33,537,13

TABLE IV *Index numbers showing the quantitative relation between foreign trade in 1912, 1913, 1914, 1915 and 1916, and in the five years 1911-1914*

Articles	Average 1910-1914		1912		1913		1914		1915		1916	
	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion	Importa- tion	Exporta- tion
Corn	100.0	100.0	22.5	84.5	93.2	84.5	226.0	291.9	198.7	77.3	108.4	413.9
Rye	—	100.0	—	7.3	—	7.3	—	15.9	—	1.7	—	2.7
Barley	100.0	100.0	12.5	17.0	307.6	17.0	91.5	167.4	7.1	1471.9	0.3	1651.6
Rice	100.0	100.0	455.8	203.8	125.7	203.8	89.0	164.4	146.3	518.9	218.5	351.3
Maize	100.0	100.0	67.0	187.8	222.0	187.8	78.9	66.5	80.6	135.5	42.5	179.1
Potatoes	—	100.0	—	159.8	—	159.8	—	108.3	—	130.7	—	121.6
Peas	100.0	100.0	160.8	106.5	54.8	106.5	98.2	105.4	27.1	361.8	30.1	172.2
Wine	—	100.0	—	142.3	—	142.3	—	72.5	—	47.9	—	139.0
Oil	—	—	—	70.4	—	70.4	—	104.5	—	157.6	—	78.2
Annual index number	143.9	148.2	166.6	132.3	116.7	132.3	116.7	122.3	91.9	322.5	91.9	349.9

TABLE V — *Production and consumption of corn in the different provinces in 1917, in quintals.*

Provinces	Production	Consumption	Excess	Deficit
Zaragoza	2,241,700	917,496	1,324,204	—
Huesca	1,647,532	956,231	1,091,231	—
Burgos	1,849,639	821,270	1,029,369	—
Navarra	1,521,536	621,976	899,560	—
Albacete	1,525,354	692,072	833,282	—
Valladolid	1,425,770	727,837	697,933	—
Toledo	1,580,506	954,907	625,599	—
Cuenca	1,275,425	669,033	606,392	—
Lerda	1,180,970	595,993	584,777	—
Guadalajara	967,910	464,163	503,747	—
Palencia	940,206	473,178	467,028	—
Salamanca	1,191,800	732,475	459,325	—
Badajoz	1,578,190	1,167,264	410,926	—
Granada	1,444,576	1,043,160	401,416	—
Soria	656,200	316,398	339,802	—
Sevilla	1,429,725	1,162,160	267,565	—
Zamora	853,814	602,699	251,115	—
Gerona	811,042	560,582	250,460	—
Teruel	729,870	520,714	209,156	—
Segovia	513,628	349,315	164,313	—
Castellon	741,627	582,554	159,073	—
Alava	233,176	190,374	82,802	—
Cordoba	995,785	937,342	58,443	—
Jaen	1,031,500	1,018,189	13,311	—
Baleares	603,364	593,037	10,327	—
Cadiz	898,140	887,875	10,265	—
Avila	433,496	425,533	7,963	—
Barcelona	450,900	1,877,637	—	1,426,737
Oviedo	115,500	1,111,170	—	995,670
Pontevedra	48,450	796,732	—	748,282
Coruna	418,676	1,131,594	—	712,918
Madrid	854,250	1,543,050	—	688,800
Lugo	121,150	780,048	—	658,898
Valencia	827,255	1,466,421	—	639,166
Orense	38,438	661,638	—	623,200
Canarias	268,462	789,306	—	520,844
Murcia	579,846	1,086,168	—	506,322
Vizcaya	70,191	565,861	—	495,670
Almeria	225,877	649,421	—	423,544
Alicante	424,300	842,426	—	418,126
Santander	84,853	494,876	—	410,023
Malaga	699,918	940,599	—	240,681
Huelva	301,950	537,301	—	235,351
Caceres	592,220	810,287	—	218,067
Guipuzcoa	163,770	316,076	—	212,316
Leon	596,846	718,164	—	121,318
Tarragona	491,966	576,936	—	84,970
Lugoño	291,530	347,416	—	55,886
Ciudad Real	792,093	846,471	—	54,378

Inversely, the index number referring to the importation considered falls in 1915-1916 to 91.9 per cent. of the same average, while that referring to exportation is 322.5 per cent. thereof in 1915 and 349.9 per cent. in 1916. This twofold symptom of the increased exports and the diminished imports may be taken to be up to a certain point a concomitant cause of the existence of the problem — up to a certain point only and concomitant only because since 1915 the Spanish government has encouraged the foreign import trade and prohibited the export of certain determined products as often as one or other of these measures has been dictated by public needs (1).

Often however there has elapsed between the appearance of the symptom and of the legislative measure intended to counteract it an interval sufficient to throw the market out of balance. Thus in view of the danger of a paralysis of important manufacturing industries through the lack of such primary materials as coal, hemp and cotton, the public authority has been forced to seek these articles in other, generally belligerent, countries, to whom they have in exchange allowed articles of primary necessity and indispensable to domestic consumption to be exported. This exportation has not however modified the conditions of the market much.

In any case this is not, we repeat, the chief cause of the condition we are examining. If we follow up our investigation of the probable causes already indicated we find that the predominant cause is a defective distribution among provinces. We have only the data reproduced in Table V on the production and consumption of corn in every province in Spain in 1917. These *a posteriori* statistics would unfailingly have yielded an analogous result if the other articles of primary necessity had also been taken into account. There would be no particular interest in the fact that only the phenomenon of an excessive or an inadequate production in each province were discovered, and that balance had at once been restored on all the home markets by means of a regulating and automatic distribution. But the data reproduced reflect the situation at a time when this equilibrium ought already to have been re-established for they refer to the end of 1917, and therefore the fact is indicated that with present conditions it has not yet been possible to ensure the balance of supply and demand.

Individuals and institutions in productive districts hide their products and foodstuffs, in their determination not to allow their production partially to benefit other mainly consuming districts. Either they fear to be in want themselves or they hope for a rise in prices. The lack of material makes transport difficult as do the inadequate capacity of railways and the increased tariffs. Add to all this the lack of official and periodic statistics, and the chief causes of the defective distribution of articles of primary necessity are discovered. Together with other and secondary causes they have brought about the present inconveniences which weigh especially upon the consumers of the country.

(1) See *Annuaire international de législation agricole* published by the International Institute of Agriculture.

As to the concealment and engrossing of products, some observations of the General Provisioning Commissariat should be noted. "There is at present a fact which no one can deny, namely, that sales are restricted by persons who hoard foodstuffs. Speculation finds a vast field for its machinations in the uncertainty of demand which is a *consequence of the difficulties of distribution*. A still graver matter is the warehousing and depositing near the frontier of products which there wait for an opportunity to be made into contreband, and usurers and speculators have not failed to establish their headquarters near these depositories". Elsewhere the commissariat states, "When the inadequacy of means of transport increases, and the difficulties of distributing foodstuffs together with the lack of foreign markets limit available quantities, engrossment finds a favourable opportunity to make profits. The engrossers evidently forget all feeling for the national solidarity. They apply themselves to machinations of all kinds in order to raise the prices of the most necessary articles and thus they disturb the life of the least well-to-do classes".

The problem therefore exists and, we repeat, it is where foodstuffs are concerned essentially a problem of distribution. As to the rise in prices it is clear that this also depends, and in a very special degree, on the irregularity with which products are distributed, although it is influenced by the increased prices of articles of consumption and machinery, by the increase in costs of transport, and by the rise of wages due to the exodus of the rural population to manufacturing centres where factories, stimulated by the feverish demand of the belligerent countries, absorb the larger part of the local labour-supply, paying very high wages.

§ 3. THE ACTION OF PUBLIC AUTHORITIES.

Having examined the chief elements of the problem of the food supply in Spain, we will turn our attention to the action taken by the government with regard to it.

At first, that is to say at the beginning of the war when its probable duration could not yet be forecast with any probability, the public authorities took up an expectant attitude. Later, when there was a lack, either real or artificial, of some products, the prohibition to export these was first put in force although the problem had not yet a well defined aspect. But difficulties increased nevertheless, and well co-ordinated general measures having one aim became necessary.

In order to attack the whole problem a knowledge of all its elements was necessary, for it was desirable that the institutions called upon to overcome the difficulties which would successively arise should be completely informed when they undertook their task.

The first act of the public authorities was therefore to delegate to the government the special powers rendered necessary in this abnormal time, and to form an institution whose essential object should be the affording

of information and advice. This institution was charged to study the various concomitant causes of the problem and to propose methods of solving it to the government. The result was the law of 11 November 1914, called the Alimentation Act, and the relevant regulation of the 23rd of that month, the royal decree of 14 November 1916, and the institution of a central committee of the food-supply having an executive committee.

The two laws cited give the government power temporarily to reduce or suppress the rights of exporting foodstuffs of primary necessity and primary material, if the extraordinary circumstances make such action needful for the supply of articles of consumption or for the working of industries or the management of agricultural business. The government is authorized to impose on railway companies and the subsidized navigation companies such lowering of their rates for transport as is considered advisable. If the interest of these companies be acknowledged thus to have suffered, the government may come to agreements with them as to granting appropriate compensation. By making repayable advances, or by guaranteeing the interest on the capital risked, the government may help Spanish companies or enterprises acting as carriers on railroads or undertaking the payment of tolls for the transport of foodstuffs of primary necessity and primary material. These laws also authorize the government, for the time for which it remains in force, to buy foodstuffs of primary necessity and primary material on its own account, and to regulate prices, fixing either their general rates or their special rates for one or more provinces.

As regards the carrying done by the merchant navy, power is granted to take all necessary steps, including the requisition of Spanish ships and the fixing of a special rate for freights.

Where cereals and fuel are concerned, the government may draw up the scheme for distribution which it thinks the most advisable for the provisioning of the country. If circumstances dictate such action, the government can declare null or suspend the effects of contracts between private persons, and requisition and manage directly mines and gasworks, and all businesses connected with the production of coal, and can dispose of the products they yield.

Finally the government is empowered to regulate and restrain the consumption of articles of which the supply is thought to be very costly or difficult.

The law considers the expropriation of owners of foodstuffs and primary material, and the temporary occupation of the warehouses or other material where these are stored, to be of public utility. This expropriation may affect only such quantities of the goods in question as are strictly needed for the nation's consumption. In any case it may not affect foodstuffs and primary material which the owner intends for his own consumption or that of his family or for the purpose of the industry in which he is engaged.

A necessity for such local requisition or occupation shall be recognized by the government to exist on the application of the communes interested and on the proposal of a body formed of the civil governor of the pro-

vince, the president of the lawcourt, the delegate for affairs and the *alcade* of the capital. The price of merchandise and, if necessary, the compensation for loss suffered, will be fixed by the governor of the province, after the person interested has been heard and the advice of the respective chambers of commerce or agriculture and all the other institutions whom the governor thinks it well to consult has been taken. The sum due for the quantity of goods involved shall be paid by the commune interested, which may in no case sell the goods it thus buys for a price exceeding the purchase price by more than 3 per cent.

The royal decree of 14 November 1916, which created the Central Provisioning Committee responsible for the application of this law, lays down that the committee, over which the President of the Institute of Social Reform presides, must comprise two senators, two deputies, the under-secretaries of State and of the government, the general directors of public works, mines and forests, trade, industry and labour, navigation and fishing, customs and disputed questions, the general superintendent of the State Administration, representatives of the commission for the protection of national industry, the chambers of industry and of commerce and the farmers' and shipowners' associations, a workman member of the Institute of Social Reform, a railway director, a representative of the coalmining companies and another of the general association of stockfarmers, a publicist, and two representatives of consumers. Such is the constitution of this committee which, owing to its large and heterogeneous membership, lacks elasticity and integrity. It would have done no really useful work; it would even have impeded official action in the succeeding period in which a national policy in relation to the food-supply really had its beginning in Spain.

The Central Provisioning Committee was created on 30 April 1917 and dissolved five months later. While it existed it confined itself entirely to a work of investigation which has been of some use to the institutions which succeeded it. No effective or durable part of its legislation relative to the food-supply has survived.

In this and the succeeding periods, until the time when the general provisioning commissariat was instituted, there were formed, for the study of various aspects of the problem, a special provisioning commission, a committee of transport for railways and a committee of information on agricultural production, and each of these was intended to give advice within its own province.

Thus from the time when difficulties with regard to the nation's supplies first became manifest, that is from the date of the declaration of war, there were governmental provisions affecting the food-supply, but until the middle of 1917 they were of a preliminary character. In this period the public authorities, whom the abnormality and the importance of the problem had surprised, sought only to collect as many data and as much information as possible. With this object they made use of *ad hoc* institutions, and they hoped that in one way or another the problem would prove to be soluble.

§ 4. THE GENERAL PROVISIONING COMMISSARIAT AND ITS PROGRAMME.

It is at this point that the General Provisioning Commissariat, created by a royal decree of 3 October 1917, appears. We have already seen that the central food-supply committee was little fitted for any practical action which would modify even partially the increasing difficulties encountered in providing articles of primary necessity. We have said that all the agencies which were formed were used only for purposes of consultation and investigation. After three years the enquiries which were to direct the government's policy in so delicate a matter were almost complete, and therefore it was necessary to form an organization controlled by one person, who should be responsible for the provision and the distribution of foodstuffs within the country, and for the determination of their price and the restriction of their consumption.

This necessity gave rise to the General Provisioning Commissariat, already mentioned, which was entrusted to a commissioner nominated by the government. According to the decree constituting it, the commissariat should, as the government's delegate, solve all problems relating to the provisioning of the country, including those connected with the purchase of corn abroad, and make proposals to the *Ministerio del Fomento* and the Minister of Finance with regard to sea and land transport and the exportation and importation of foodstuffs. For the application of the cited law of 11 November 1916 the commissariat supersedes the suppressed food-supply committee.

This commissariat has made partial use of the material collected by the organizations which preceded it, completing such material with the results of other researches and with information it has itself obtained. At the end of October 1917, that is one month after its foundation, it laid before the government a fairly complete programme for a national policy in the matter of the food supply. The principal measures considered by the commissariat to be demanded by existing circumstances were indicated.

We will now briefly examine the various items of this programme.

1) *Standard Prices of Coal and Selling Syndicates.* — It is proposed to establish for mines a scale of prices for coal, corresponding to its quality, and to fix reduced prices for the quality intended for domestic consumption. It is further proposed compulsorily to establish selling syndicates in mining zones to be determined by the government. This first measure would aim at regulating the prices of the most favoured industrial products, a matter which the General Commissariat considers urgently necessary. It found that the price of coal directly influences the cost of agricultural products, and that it would be difficult and even unjust to insist on standard prices for foodstuffs while the price of coal was not controlled. Moreover the commissariat considers that the artificial rise in prices largely depends on two intimately connected factors which are responsible for a deficit in Spanish economy, those namely, of coal and of transport. To solve this problem

the commissariat proposes to institute within zones fixed by the government syndicates for the sale of coal which shall have a compulsory character. The mines within these zones must declare, within a short space of time, the quantity and the quality of their yield of coal and the contracts binding on each of them, together with the prices stipulated in these contracts and the industry for which the coal they concern is destined.

2) *Fixed Prices for Foodstuffs.* — The commissariat proposes to fix standard prices for all foodstuffs. The provincial food-supply committees should regulate the prices of these on the basis of the prices already established, to which they should add merely the costs of transport from the place of production to that of consumption. The commissariat considered that it would be a grave mistake to place a standard price on corn and leave the prices of other articles of primary necessity free, for this would restrict the sowing of cereal crops, a very serious matter if it be remembered that in order to meet the needs of the country the natural yield of grain should exceed 38 million quintals. This figure is higher than that representing the current average, and the production of corn should therefore be intensified.

3) *Measures Counteracting Engrossment.* — It was necessary to prevent the clandestine hoarding of foodstuffs of primary necessity if the quantities hoarded were sufficient to enable engrossment. The hoarded goods must then be sequestered. If the standard price were not the means of securing a just distribution of products, by establishing a balance between the provisions emanating from producing provinces and those going to consuming provinces, by creating a national market and by fixing national and not abnormal prices, it would not be a useful but a dangerous factor for it would be an obstacle to free trade. Hence arises a necessity for finding a sanction for the imposition of standard prices, and therefore the committee must possess means for combating engrossment.

4) *Requisition and Distribution.* — The government should interfere directly when requisitions are necessary if the communes and the provincial committees meet with difficulties in making them. It should then bring the hoarder of the requisitioned foodstuffs and the consumers' institutions into direct relation with each other. If this be impossible the government should itself arrange for the distribution of the necessary foodstuffs. When once standard prices have been fixed for all foodstuffs, when engrossing centres have been denounced, and when hoarders of large stocks have become known, the true opportunity for the commissariat occurs. It can then at once requisition and distribute the goods in question as exactly as possible, being guided by the absence or presence in any province of an excessive supply of the articles essential to life.

The commissariat's real object was to establish the exchange, which would have these levelling results, in voluntary form, reserving the power to overcome any eventual resistance by general or detailed requisitions.

5) *Transport.* — The relation between the problems of the food supply and of transport in Spain is, in the opinion of the commissariat, so close that the former can be solved only after the latter. The commissariat

therefore proposed in its programme that the executive committee of transport, over which the Minister of *Fomento* should preside, should undertake :

a) the organization of existing means of transport, giving a precedence to the trade in foodstuffs ; b) the employment of new means of transport on temporary railroads to be removed afterwards ; c) the immediate construction of mining railway in order to aid production, and of railways which will facilitate the communications between producing and consuming provinces ; d) the revision of tariffs for the transport of foodstuffs and the institution of special tariffs to provide for State requisitions, together with the determination, when necessary, of compensation for railway companies ; e) the purchase and the manufacture of the material of transport on behalf of the State.

6) *Importation*. — The general provisioning commissariat, which a royal decree has already made responsible for the purchase of corn abroad, also proposed the importation, as a matter of urgent necessity, of British coal, Algerian phosphorites, nitrate of soda from Chile, and material for the manufacture and the repair of the engines in Spain. The importation of corn aimed at securing a margin, that is an excess over the necessary quantity which would render the manoeuvres of engrossers vain. The importation of coal tended to supplement the insufficient production and to meet the needs of transport especially. The imported phosphorites and nitrates would supply the manure factories which would aid agricultural production. Finally the material for the manufacture and repair of engines would obviously serve to increase means of transport or at least to prevent their diminution.

7) *Exportation*. — With regard to exportation, the commissariat proposed in its programme to follow the policy of absolutely prohibiting the sending of foodstuffs out of the country, even if they were produced in quantities exceeding the needs of consumption, while current market prices maintained their level. This last part of the commissariat's recommendations was due to the fact that the existing quantities of rice and oil much exceeded those needed for the country's consumption, while at the same time the price of these commodities remained very high because at centres where they were produced a permission to export them abroad could certainly be obtained. In view of this phenomenon of a production going beyond the needs of consumption and yet not in the least lowering the world's prices, the commissariat proposed to prohibit exportation absolutely until the selling syndicates and federations should themselves offer, on sure guarantee, reserves sufficient for the country's consumption at maxima selling prices within the country. Failing this guarantee, the commissariat considered the authorization of exportation to be quite impossible, for prices could never be reformed if producers were left certain that they would be able to export freely without fulfilling the preliminary conditions.

8) *Contreband*. — The commissariat proposed to increase the police corps and the civil guard, appointing extra men to the provisioning service, and to extend the districts of watches. The commissariat truly remarked that the first effect of a general regulation of prices and the imposition of

standard prices is an enormous pressure at the frontier, for articles affected by the regulation tend to pass into neighbouring countries where they fetch prices two or three times higher than those current on home markets. Hence the impossibility of really dealing with the problem of the food-supply if a policy of prohibition is inaugurated and an unpassable barrier is not at the same time erected at the frontier. If this latter measure were neglected, to lower the price of articles of primary necessity would be to cause their exodus.

9) *Statistics*. — It was proposed to establish in Spain a department for the statistics of provisioning and of crops. In § 2 we noted the insufficiency and incompleteness of statistical data, which obliged us to have recourse to indirect means in order to investigate the causes of the provisioning problem. The importance of the new department, as the secretariat proposes that it shall be formed, will be understood. It is intended that it shall base its resolutions entirely on an exact knowledge of the production, consumption and prices of all articles which serve to provision the country.

Such are, briefly, the proposals which the General Provisioning Commissariat presented to the government at the end of October 1917. They are seen to be co-ordinated and inter-related proposals, aiming eventually, after the course of exportation has been regulated, at bringing about a suitable distribution of articles of primary necessity by intensifying transport and by using standard prices and requisitions to prevent abusive speculation.

§ 5. MEASURES ADOPTED BY THE GOVERNMENT.

The government has followed this programme of the General Provisioning Commissariat, little by little translating into legislative measures a large number of their proposals either in their entirety or in a more or less modified form.

There is first of all the royal decree as to transport, dated 20 October 1917. In order to render a somewhat congested land traffic more expeditious and to obtain the maximum yield from the material of transport, in order to cause an inflow into ports of merchandize which should be carried by coasting vessels without causing a noticeable difference between freights and the costs of railway transport, the decree divides the coast of Spain into the group of Cantabro, and the southern and eastern groups. To each port comprised in these groups a zone of influence is assigned for the traffic by the sea-route which it must undertake. The decree indicates the extent of these zones, giving the name of the last station in each. It is further provided that goods weighing more than 500 kilogrammes shall not be accepted for express transport, except live stock of all kinds, poultry and fresh food. For slow transport, cargoes of less than 60 kilogrammes will not be accepted unless they come from one of the stations in the groups and are destined for others of them. The execution of the provisions of the royal decree is entrusted to the committee of maritime traffic.

There is also the royal order of 14 November 1917 which refers to the purchase of corn abroad and is perhaps one of the most important measures regarding the Spanish food-supply which have ever been taken.

According to this order Spanish producers of flour who wish to buy corn abroad will by the medium of the general provisioning commissariat send the Minister of Finances a note of the purchases they wish to make in order that these may be approved. When they are approved, the contracts will be made directly between buyers and sellers who will, without State aid or intervention, resolve all questions which may arise with regard to their execution.

State aid in importing corn consists in: a) the grant by means of the committee of maritime traffic of ships needed for transport, at reduced heights to be determined by this committee; and b) an exemption from tariff dues and from taxes on maritime transport, for which the State becoming responsible.

The State will pay to sellers, on behalf of purchasers, the amount shown on invoices when ships reach the ports for which they are destined, but will be repaid by the purchasers in cash. If the purchasers find it more convenient to pay in instalments they may do so in the case of one third of the sum due, giving notes on the Bank of Spain falling due in 30, 60 and 90 days and guaranteed by persons or institutions known to be solvent.

The purchasers cannot have the corn delivered to them until they have paid for it or handed over notes of this kind. In distributing the imported corn the industrial power of factories will be taken into account, and the fact that certain provinces do not produce corn or produce a quantity less than that consumed.

Producers not wishing to conform to the provisions of the royal order must form in the various districts purchasing committees, which will propose purchasing terms conforming to the prices which will be fixed in Spain for corn and flour, taking distribution in their districts into account.

The price of corn at its place of arrival, on the quay, will be determined, when account has been taken of the cost price of freight, and of insurance, port dues, and the cost of transport, unloading and delivery, by the Minister of Finances on the proposal of the provisioning commissariat, but will in no case surpass the price of home-grown corn in the same port. The commissariat will fix in relation to this price and to special local conditions not only the selling price of flour but also the qualities and quantities with which the producer is obliged to deal.

The selling price of flour may be higher than that of corn but by no more than 11 pesetas a quintal, calculated on the net weight, irrespectively of the containing vessel and in the warehouse of the flour factory. The sale of flour will be directed by the provincial committees of the food-supply who will keep a running account with every producer in order that the quantity of corn each receives and the destination of his flour may be known.

The producers enjoying these facilities will make to the deposit fund

a cautionary payment of 2 per cent. of the amount of provisional invoices, thus giving security for the fulfilment of their obligations.

Such deposits will be repaid within eighteen days of the payment of the last relevant notes.

By means of three royal orders, two of them dated 7 March and one of them 2 March 1918, the government fixed the maximum selling prices of corn, rice and oil. These maxima are for corn warehoused or carted at the place of production, 40 pesetas a quintal; for oil at the producer's warehouse, not in any vessel, 1.54 pesetas for the ordinary quality and 1.60 pesetas for the superior quality.

The royal order of 30 April 1918 is equally important. It directs that an institution to be called the Riscultural Federation shall be brought into being by government initiative, and shall consist of Spanish farmers, wholesale merchants and manufacturers producing and treating rice. This institution is asked for by the general provisioning commissariat, and it shall aim at facilitating the supply of the home market, and intervening in the exporting business which ensues when a regular authorization for the exportation of a surplus is obtained.

The Riscultural Federation will be managed by a committee of seven members, namely two representatives of the farmers, two of the merchants and two of the manufacturers and a delegate and nominee of the provisioning commissariat who shall be president. Its duties shall be: a) to draw up general statistics as to available quantities of rice; b) to centralize the sale of rice for exportation; c) to help the commissariat by facilitating the provisioning of the home market at the established standard prices; d) to see that the quantities of rice correspond to the declarations made regarding them; e) to solve all questions submitted to it.

All who belong to the federation will report selling contracts to the committee. On the home market unrestricted freedom of contract will be respected, saving due regard to fixed prices and to measures ensuring the victualling of the nation.

Finally we must notice specially the royal decree of 31 May 1918 which provides that the whole Spanish merchant navy shall be employed on maritime traffic for the transport of commodities of which the government considers the importation, circulation or exportation to be in existing circumstances indispensable to national economy. With this object the general provisioning commissariat may annul contracts for transport or suspend their effectiveness if it deem such action to be indispensable in order to render the fleet available and organize traffic.

Executive power, subject to the instructions of the commissariat, is entrusted by this royal decree to the committee of maritime traffic which shall have the following duties: 1) to designate the ships which are to render services determined by the general provisioning commissariat; 2) to fix, with this commissariat's approval, the freights thus becoming due; 3) to propose indemnities which may be granted for costs of overtime, 5) to organize the lines of the national coasting service; 5) to solve questions as to claims made by owners and loaders; 6) to effect liquidations and the distri-

bution of losses among owners for the services they accomplish at reduced freights ; 7) to discharge all duties imposed by the government and the general provisioning commissariat in the matter of maritime traffic.

* * *

Such are the chief legislative measures which were the outcome of the proposals of the provisioning commissariat. It has been seen that these measures constantly increase the commissariat's importance and extend its sphere of activity. The Spanish government has in general accepted the directing principles established by the commissariat, and public authorities have been able to overcome the tenacious opposition of many interested persons and bodies as well as that of the middlemen and engrossers who sought to take advantage of the agitation to which the abnormal situation gave rise.

The measures taken by the Spanish government to solve the problem of the food supply are still of such recent date that their results cannot be judged or appreciated. The favour and satisfaction with which the nation has received them, especially the consumers, justify the hope that when further measures have completed them they will at least have the effect of facilitating the solution of the problem which we have studied and have found to be on the whole a grave one.

GREAT BRITAIN AND IRELAND.

AGRICULTURAL RECONSTRUCTION.

OFFICIAL SOURCE:

REPORT OF THE AGRICULTURAL POLICY SUB-COMMITTEE OF THE RECONSTRUCTION COMMITTEE, 1918

The Agricultural Policy Sub-Committee of the Reconstruction Committee, appointed in August 1916 to consider and report upon methods of effecting an increase in the home-grown food supplies, having regard to the need of such increase in the interests of national security, has just issued its report (1) which is a full exposition of the position of agriculture in this country. It opens with an historical preface which is a brief survey of agricultural conditions during the last hundred years and the political and social factors exercising an influence on them; and it proceeds to deal in detail with the various problems connected with British agriculture. A number of more or less drastic recommendations are made by the committee with the object of ensuring agricultural reconstruction.

The subjects dealt with include :

(1) Effects of the agricultural depression ; (2) Need for a new agricultural policy ; (3) Agricultural wages ; (4) Price of wheat and oats ; (5) Effect of guaranteed prices on rents ; (6) Method of securing increased production ; (7) Sugar beetroot ; (8) Scope and limitation of the inquiry ; (9) The departments of agriculture ; (10) Organization and co-operation ; (11) Agricultural credit ; (12) Small holdings, ownership, and tenancy ; (13) Village reconstruction, village industries, and rural life ; (14) Tithe redemption ; (15) Local taxation ; (16) The Agricultural Holdings Act ; (17) Reclamation and drainage ; (18) Deer forests ; (19) The elimination of pests and weeds ; (20) The supply of artificial manures ; (21) Weights and measures ; and (22) Transport. .

It is not proposed to give here a summary of the whole report. The following verbatim abstracts of some of its principal parts will afford an idea of the committee's views and recommendations.

§ I. INTRODUCTION.

" We desire at the outset to explain that we were informed that the question asked us did not refer to war but post-war conditions, and our report is drawn up from that point of view only. Nevertheless, it is evident

(1) An interim report of the sub-committee, issued early in 1917, is noticed in connection with the Corn Production Act in our issue for December 1917, pages 77 and 78

that for some time after the war agriculture must be seriously affected by the conditions which have prevailed during the war. Any inducements and assistance, which the farmers receive now to keep their fields cultivated or to cultivate additional land, will bear fruit in the post-war period, and may even be considered as direct steps towards the object we have in view. We trust, therefore, that we shall not be considered to have passed beyond our legitimate subject when we express our conviction that farmers need and deserve all the help and encouragement which His Majesty's Government can possibly give them at the present time.

"The experience of the war has shown that the dependence of the United Kingdom on imported food has already involved the country in special difficulties, and in the future may become a source of real danger. We have found that it has increased the cost of the war; aggravated the difficult problem of regulating foreign exchange; and absorbed an undue proportion of the tonnage of the mercantile marine at a time when its services have been so sorely needed for other purposes. We are conscious also of the possibility of a development in the construction of submarines which in a future war might make impossible a continuous supply of food to the people of the United Kingdom from overseas. We hope and pray that the greater sanity of nations and their increased obedience to the Divine law may save our country from any repetition of the hideous catastrophe which has today overwhelmed Europe, but we can feel no positive assurance that this will be the case, and we do not think that we should be faithful to our trust for our descendants if we omitted to take any practicable measures to increase the national safety in a future time of need. We can well imagine that in some future struggle the comparative independence of the United Kingdom of a supply of food from overseas might be a determining factor of victory. Apart from these grave considerations, it is evident that, after the war, the financial and physical welfare of the country will demand that the productive capacity of the soil should be developed to the fullest extent. Burdened with a huge debt, the nation will be strongly interested in producing as much as possible of its food at home, in order that it may buy as little as possible abroad. Exhausted in man power, it will find in the expansion of the rural population of these islands the best restorative of its vitality and creative energy.

"We have approached the problem entrusted to us exclusively from the point of view of national security and welfare, and we have endeavoured to formulate a scheme of agricultural policy which may be generally accepted by the nation and adhered to through a long course of years".

§ 2. NEED FOR A NEW AGRICULTURAL POLICY.

"We are confident that, as the years pass by and agriculture becomes more intensive in the United Kingdom, an increase of production will be reached which would now appear impossible to many farmers, and that, if the agricultural policy which we recommend is carried out steadily and continuously, a great change will be effected within a generation.

" Nothing in agriculture can be done by the wave of a magician's wand. Results can only be produced in the United Kingdom as in Germany by a constant and consistent policy. The State must adopt such a policy and formulate it publicly as the future basis of British agriculture, and explain to the nation that it is founded on the highest considerations of the common weal. It must be explained to landowners, farmers, and agricultural labourers alike that the experience of this war has shown that the methods and results of land management and of farming are matters involving the safety of the State, and are not of concern only to the interests of individuals. They must be plainly told that the security and welfare of the State demand that the agricultural land of the country must gradually be made to yield its maximum production both in foodstuffs and in timber (1). The history of our country shows that, when once the path of duty is pointed out to them and they understand how grave is the responsibility put upon them, neither landowners nor farmers nor agricultural labourers will fail to rise to the emergency.

" There is much excellent estate management and much high farming in the United Kingdom to-day, but there is also much slack estate management and bad farming, or management and farming which, while profitable to the persons interested, do not take national requirements as to food production into account. That this is so is known to all who have studied the present conditions of British agriculture. The causes of bad estate management and farming are lack of suitable education or of capital (often found in combination) on the part of landowners and farmers, the personal equation of character, the excessive encouragement of game, the acquisition of land for the sake only of its amenities, and the conviction that the State has no interest in the treatment of agricultural land and that it is the concern only of the individuals dependent upon it.

" The general average of farming must be steadily and continuously raised throughout the United Kingdom ; the grass land and the arable land alike must be more intensively cultivated ; the improvement of live stock, for which landowners and farmers have done so much even through the years of acute depression, must be progressive ; much grass land must be reconverted into arable ; the sugar beet industry and the manufacture of potato products can be introduced into British agriculture to its great advantage ; estates must be managed with a single eye to maximum production ; capital must be attracted to the industrial equipment and improvement of the land and to the operations of intensive farming ; agricultural labourers must be provided with an adequate supply of good cottages ; small holdings both of owners and of occupiers must be fostered to provide a " ladder " for the agricultural labourer and for the demobilized sailors and soldiers ; the organization of agriculture must be developed ; the country must be permeated with a complete system of agricultural education ; the status of the department of agriculture must be improved and their

(1) The subject of forestry was referred to another sub-committee of the Reconstruction Committee, whose report we summarize in our issue for April 1918, page 345.

powers enlarged and reinforced by association with existing agricultural and administrative bodies, both national and local. All these questions and others of much importance, such as reclamation, the incidence of local taxation, credit, the working of the Agricultural Holdings Act, etc., etc., will be dealt with in our report, which will present a scheme of agricultural policy as one whole ; but we think it our duty to put in the forefront our conviction that a basis of security and stability of the conditions under which agriculture is to be carried on in the future must be the foundation of the whole structure, and that without it the increase of production, which we predict, cannot be realized.

" We are of opinion that the conditions of agriculture must be made so stable that out of its profits the agricultural labourer can be assured a fair wage, the cultivator of the soil a fair return for his capital, energy, and brains, and the landowner a fair return for the capital invested in the land, and we believe that this stability can never exist so long as there is a possibility of a recurrence of the prices of the late period of depression.

" We recommend that the State should fix a minimum wage for the ordinary agricultural labourer in each county, guarantee to the farmer a minimum price for wheat and oats, and take steps, as set forth in later paragraphs, to secure the increase of production which is the object of the guarantee. The cereal crops are the pivot of agriculture, and we do not consider that dairy and stock farming will in any way be prejudiced by our proposals. Moreover, as we have already stated, these very important branches of the agricultural industry can be more, not less, advantageously conducted on arable land than on grass land. In the United Kingdom there is land so adapted to pasture that its retention in grass can be defended on economic grounds. There is also grass land the soil of which is a clay so sticky that in the climate of these islands under the plough " season can only be got upon it " once in three or four years ; and there is other land where the climatic conditions render the harvest precarious. It would be useless to plough such land. Of the remaining grass land a large proportion could be ploughed up with advantage to the farmer, the landowners, and the State. The interests of the State demand that more land should be put under the plough, and any landowner and dairy or stock farmer, who chooses to convert part of his grass land into arable, could at once obtain the benefit of the guarantee and at the same time increase the output of his particular products.

" We have no authority to consider the fiscal policy of the country as a whole ; our reference, though a very important one, is strictly limited, and we shall confine our report to an answer to it. At the same time we think it right to put on record our opinion that if the State, for reasons of general policy, were to adopt a tariff on manufactured goods, then a tariff corresponding in degree (with the necessary differentiations between the products of the empire, of allied, and of other countries) should be imposed on imported foodstuffs such as dairy produce, meat and corn, and that special consideration should be shown to the produce of the more intensive forms of agriculture (of which fruit and hops and flax may be cited as exam-

ples), where the capital invested and the annual expenditure in cultivation and the proportion of that expenditure on labour, are particularly large."

§ 3. METHOD OF SECURING INCREASED PRODUCTION.

"The government has no fairy touch which will enable it to produce instantaneous results. It must work through, and by means of, the men who are now holding and cultivating the land. If it was so foolish as to try and do their work as well as its own, the only result would be to bring agricultural production to a standstill. There is no body of men in existence except the farmers of the United Kingdom and those who have qualified; or who are qualifying, to become farmers, who are capable of farming the land. Technical knowledge based on experience is just as essential for successful farming as education and brains and capital. It is when all these qualifications exist in combination that the best farming is found. Therefore the State must give time to all concerned to adjust themselves to the new conditions dictated by considerations of national safety. It should formulate its policy and explain the reasons for it in simple definite terms; it should make clear the part it proposes to play itself, that the policy explained will be steadily and consistently followed, and that, while the policy is being worked out, the agricultural industry will not be subjected to any harrassing legislation. The State must, in short, take every means in its power to give confidence and a sense of stability to landowners, farmers and agricultural labourers. It must then tell those classes exactly what is expected of them, and appeal to their highest instincts of patriotism to put personal predilections aside, and to unite to carry out a policy on the success of which the safety of their country may some day depend. The standard set before their eyes should be the highest—not to be content till the whole soil of the United Kingdom is producing the greatest possible return of foodstuffs or of timber. It must be clearly understood that henceforth bad farming is a danger to the State, and that the waste of good land on game or games is inconsistent with patriotism. There will be plenty of room for game or golf in moderation, but too much game, or golf links carved out of fat land, make an inroad on the production of foodstuffs which can no longer be defended. Rabbits must be recognized to be what they are, a curse to both agriculture and forestry. There are localities where the rabbit defies extermination, but the effort to deal with the pest should never be intermitted. The theory in fact should be that rabbits are only to be tolerated in completely enclosed spaces, where the ground is of such a nature that it can more advantageously be devoted to the production of rabbits than of any other foodstuffs.

"When all this has been explained to them, landowners and farmers should be informed that they will be given reasonable opportunity to adjust themselves to the new conditions. The agricultural labourers being secured their share of profits by the institution of a minimum wage, the landowners and the farmers may be left to adjust their shares between them and

also to come to an agreement (which is essential) about the relaxation of covenants against the ploughing of grass land or of any others which tend to discourage good farming. We are satisfied that they will have no difficulty in doing so much more satisfactorily than the State could for them.

"We entertain no doubt that landowners, farmers and agricultural labourers alike will realize the greatness of the trust reposed in them, that they will rejoice at the recognition of the fundamental importance of agriculture to the national life, and that they will do all, and more than all, that their country demands of them. But we recognize that, when once the State has embarked on such a policy as we recommend, for the sake of the nation's safety, it can run no avoidable risk of its failure. Neither the idiosyncrasies nor the incapacity nor the lack of patriotism of individuals can be allowed to interpose even a partial barrier to the success of a national policy....."

§ 4. NEW POWERS FOR THE BOARD OF AGRICULTURE.

"We recommend that the Board of Agriculture (1) should be empowered temporarily to supersede the landowner in the management of the estate for all purposes essential to agriculture. It should put the estate, or such portion of the estate as it might deem necessary (except the mansion and the garden and park, if any, attached to the mansion), into the hands of a manager whose salary should be fixed by the Board of Agriculture and made a charge upon the estate. He should have the same powers in respect of the management of the agricultural land included in the estate as the owner had, and he should manage the estate as trustee for the owner. He should be a man of proved experience and capacity in the management of an agricultural estate, and he should render a yearly report and statement of accounts to the owner and to the Board of Agriculture. The balance of income, if any, derived from the estate after the payment of the necessary outgoings should be remitted half-yearly to the owner by the Board of Agriculture. When once the management of an estate had been so taken over by the Board of Agriculture, it should retain that management for five years, unless within that period there had been a successor in title to the original owner, in which case the estate should be handed back to his management at the end of the current farming year, if he so desires it and is prepared to accept such liabilities as may have been incurred in connection with it. If there had been no change of ownership within that period, the Board of Agriculture should be empowered to hand back the estate to the original owner at its termination if it was satisfied that the future management of the estate would be satisfactory. If it was not so satisfied, then it would continue to manage the estate for another quinquennial period, and so on from five years to five years,

(1) The Board of Agriculture and Fisheries for England and Wales; and for Scotland the Board of Agriculture, Scotland.

until there had been a change of ownership. The owner should throughout be undisturbed in the exercise of sporting rights over the estate, subject to the power of the manager of the estate to prevent those sporting rights being exercised in a manner detrimental to agriculture or forestry. If the owner of such an estate is unable or unwilling to develop it for the purpose of agricultural production, the Board of Agriculture should have the power to borrow from the Land Commissioners and to develop it for that purpose by the expenditure of capital, the charges for which (interest and sinking fund) should have priority over all existing charges on the land charged according to the principle embodied in the Improvement of Land Act, 1864. During the period of supersession the power of the owner to make any fresh charges on the estate, or part of the estate, should be suspended, and the existing charges on it, whether by way of mortgage or of settlement, should be paid out of the proceeds of the land by the Board of Agriculture.

"For the guidance of all concerned it should be laid down that it shall be the duty of every landowner so to manage his estate, and that it shall be an implied condition in every lease or tenancy agreement, that the tenant of agricultural land shall cultivate the same according to the approved practice of the best agriculture, with a view to the economic production in the interests of the community of the greatest amount of foodstuffs (for man or beast) of which the land, having regard to its quality and position, is reasonably capable.

"Where land is being badly farmed by a tenant who holds a lease, and who persists in farming badly after being duly warned of the ultimate consequences, the landowner may bring the case before the Board of Agriculture, at the same time giving formal notice of the action to the tenant. The Board should thereupon ask the local panel to appoint assessors resident in another county than that in which the farm is situated to report upon the farm, and in due course should refer their report to the Review Committee. If, as the result of the unfavourable nature of the report in respect of the farming of the land, the Review Committee so recommended, then the Board of Agriculture should be empowered to call upon the landowner to give twelve months' notice to the tenant to quit, and that notice should have effect as if the tenant had held no lease, but was a tenant holding on a yearly agreement.

"In the later part of our report we shall deal with agricultural organization in all its aspects, but it is advisable to state here that in our opinion the Agricultural Department in each county should, in carrying out the duties described in this part, act in constant consultation with a National Agricultural Council or Board, which we hope may be formed so as to represent the progressive agricultural thought of the country and fulfilling analogous functions to those exercised by the German Agricultural Council" (1).

§ 5. RURAL COTTAGES.

" The provision of good cottages for agricultural labourers with ample gardens attached to them was an urgent question before the war. We desire to impress upon His Majesty's Government with the greatest emphasis at our command that there can be no hope of a satisfactory development of agriculture as long as the demand for cottages remains unsatisfied. The provision of these cottages should be taken in hand without a moment's avoidable delay after the war. In another part of our report we shall deal with the improvement of the amenities of rural life, the reconstruction of stagnant villages, and the provision of an agricultural " ladder " for the labourers by means of small holdings. We mention these subjects now lest it should be supposed that we consider that the interest of the labourer in a national agricultural policy is limited to the questions of wages and housing.

" Our attention has been directed to the point that some amendment in the Settled Land Acts may be desirable to allow a share of the proceeds of the sale of a portion of a settled estate, to be expended on improvements other than those specified in the existing Acts..... "

§ 6. NEED FOR TECHNICAL ADVICE.

" To bring about the changes in farming which we contemplate it will be necessary for the State, in addition to providing farmers with security against loss, to place at their disposal the best available scientific and practical advice. Indeed, it will be impossible to carry out the scheme (except with serious loss and wastage) unless it is accompanied by an important development of the facilities at present available in the United Kingdom for agricultural education, technical advice, and research. It will be necessary to insist on the importance of drainage, and to demonstrate throughout the country the best means of converting grass land to arable, the best methods of manuring, and the best varieties of seed ; and to carry out on a much more complete system than has hitherto been attempted demonstrations devised to show that increased production can be secured without loss of profit. These subjects are, however, of such importance that we are deferring their consideration until the later part of our report. "

§ 7. ORGANIZATION AND ADMINISTRATION OF THE DEPARTMENTS
OF AGRICULTURE.

" The first thing necessary after the war will be to unite the whole department of agriculture under one roof. Proper administration is quite impossible when a department is scattered into a dozen separate houses in half a dozen different streets. The minister in charge of the department should be styled, as now, President of the Board of Agriculture, but his salary

and status should be raised to an equality with that of the President of the Board of Trade and the President of the Local Government Board. The staff must be increased and strengthened ; especially it needs the infusion of a proper proportion of Class 1 of the Civil Service ; those members of the staff from whom expert, or at any rate practical, knowledge is required should be selected by a combination of the systems of nomination and examination ; the First Division men, who enter through the Civil Service examination, should spend at least two out of the first five years of their service out of London ; it is in our opinion important that they should get an early insight into the working of agricultural administration, either on the provincial staff of the department or attached to the staff of local authorities. The provincial staff of the department requires reorganizing. Before the war the work of most of the provincial officers covered an impossibly large area, but many fresh appointments have since been made in connection with the campaign for food production ; in some cases officers may be made responsible for all the work of the Board in a given geographical area ; in other cases the work of officers must be specialized. In this paragraph of our report we merely indicate the fact that the staff of the department must be permanently expanded above its pre-war strength. In subsequent paragraphs we shall explain what the work is which in our opinion it should do. It may, however, be convenient in this place to draw attention to the fact that the work of other departments of the State must affect the welfare of the rural population and the state of agriculture. This is particularly true of the Board of Education, and of the Local Government Board in respect of the housing problem. It seems to us necessary that in dealing with rural housing the Local Government Board, and in dealing with elementary and secondary education in agricultural districts the Board of Education, should work in close touch with the Board of Agriculture. The organization of the department in London must be remodelled in the light of experience and in consequence of its increased responsibilities. There is, however, one aspect of this reorganization to which we wish to draw special attention. It will certainly be necessary to create a division charged with the management of all agricultural properties permanently or temporarily placed under the control of the Board of Agriculture. But the President of the Board, in his capacity of a Commissioner of Woods and Forests, is already responsible for the management of the agricultural properties of the Crown. We think that it would be a good plan to amalgamate the agricultural side of the Office of Woods and Forests with the Management Division of the Board of Agriculture, and to put both sets of agricultural properties under the same control.

“ As in Scotland, so in England and Wales, the War Agricultural Committees of the County Councils (1) should be replaced by statutory committees, which, when constituted, should have powers of action independently

(1) Since this paragraph was drafted the Board of Agriculture has been empowered under the Corn Production Act to authorize approved bodies to exercise any of the powers of the Board under Part IV. of that Act, with a proviso that the bodies so authorized shall, in the

of the County Councils, as in the case of the corresponding committees in Ireland and of the Education Committees in England. They should be composed of men and women who are not members of the County Councils as well as of members of the County Councils, but in both cases alike it is essential to secure the services of persons with practical knowledge of agriculture or some other branch of rural economy, or representative of some special rural interest rather than of the different districts of the county. These Agricultural Committees should absorb the work of the existing Small Holdings and Allotments, Contagious Diseases of Animals, and Agricultural Education Committees (or Sub-Committees) of the County Council, and of the Live Stock Committees established by the Board of Agriculture in various counties within the last few years (all of which committees should be abolished), and they should undertake any other duties entrusted to them by parliament or delegated to them by the Board. A County Council should have the power to set up more than one Agricultural Committee within its area, and the Agricultural Committee should have power to form District Sub-Committees.

"The Agricultural Committees of England should elect two representatives from each County Council area to serve on the English National Agricultural Council, already suggested in this report. The President of the Board of Agriculture should nominate to it persons representative of all agricultural interests, so that, however, the total number of nominated members shall not exceed one third of the council. The President and the Parliamentary Secretary of the Board of Agriculture should be *ex officio* members. The council so composed should meet at least twice a year to discuss questions of agricultural policy brought before it by the president, or by any of its members on due notice given, and the president or, in his absence, the parliamentary secretary should preside over its meetings.

"There is already in existence a Welsh Agricultural Council which is not statutory but does useful work. We recommend that this council should continue to perform the functions of a national agricultural council for Wales, and that it should be made a statutory body for the purpose of advising the Board of Agriculture in regard to agricultural matters in Wales, to which the Board may delegate certain powers and functions relating to local administration. The council should consist as at present of two members elected by each Agricultural Committee in Wales and Monmouth and the agricultural departments of the two colleges, with not more than twelve members nominated by the President of the Board of Agriculture. The President and the Parliamentary Secretary of the Board of Agriculture should be *ex officio* members, and the President or, in his absence, the Parliamentary Secretary should preside over its meetings. All the local work

first instance, consist of persons who are acting as members of the County War Agricultural Executive Committees. This enactment, therefore, provides a natural link between the Statutory Committees here recommended and those already in existence. See our issue for December 1917, page 76.

of the Board of Agriculture in Wales should be under the charge of a Principal Officer of the Board, who should be assisted by an adequate staff and have his headquarters and office at a centre in Wales convenient for North and South.

"We recommend also that there should be established an Agricultural Committee for England and Wales, composed of the President and Parliamentary Secretary of the Board of Agriculture, eight members elected by the English Agricultural Council, two members elected by the Welsh Agricultural Council, and three members appointed by the President of the Board of Agriculture. The committee should meet regularly every quarter, and on special occasions when summoned. The president or, in his absence, the parliamentary secretary, should preside. It should deal with any business brought before it by the president, but its members should be free to raise and discuss and pass resolutions on any subject of interest to agriculture or rural life in England or Wales. The proposed annual estimates should be laid before the committee and discussed by it before being laid on the table of the House of Commons, and when so laid they should be accompanied by a memorandum expressing the opinion of the committee upon them. All resolutions of the committee should be laid upon the table of both Houses of Parliament if so directed by them.

"The National Agricultural Councils for Scotland, England, and Wales, and the Agricultural Committees for Scotland and for England and Wales, should be appointed afresh after every general election of the county councils; and the members selected, whether by the county councils, or by the Presidents of the Boards of Agriculture, or by the National Councils, should hold office until the next general election of the county councils.

"If our recommendations are adopted there will be in existence in the United Kingdom four National Agricultural Councils, representing agriculture in Ireland, Scotland, England, and Wales. We suggest that it would be of great advantage to agriculture if delegates from these councils, say, thirty for England and five for Wales, and ten each for Scotland and for Ireland, were to meet in conference once a year. The conference should never be held two years running in the same country, but in each country in turn, and the minister responsible to parliament for the agriculture of the country in which the conference is held should act as its president for the occasion. An officer of one of the departments of agriculture should be permanent secretary of the conference, and responsible for the custody of its records. We believe that the result of such conferences would be to diminish the chances of friction between the three departments, to encourage the pursuit of a common policy, and to inform public opinion of the special difficulties and needs of agriculture and of its magnitude and importance as an industry." It would be a great encouragement to agriculture if His Majesty the King would graciously consent to become permanent patron of the conference of the combined councils."

§ 8. EDUCATION OF WOMEN

"Before quitting the subject we have something special to say about the education of women who can play a great part in the reconstruction of agriculture after the war and whose intellectual interest in country life must be surely aroused if we wish to secure an increased rural population. We hope that numbers of the women who have been working on the land during the war will wish to remain in agricultural occupations and to avail themselves of the openings which will be presented to them in many branches of farming, such as dairying in its various forms, pig-breeding, and poultry keeping. We hope that every possible encouragement will be given to women so disposed and that the agricultural colleges will see to it that their courses are made suitable to them, and that the posts of lecturers are as open to fully qualified women as to men.

"The subject has already been fully dealt with in the report (1915) to the Board of Agriculture and Fisheries of the Agricultural Education Conference (Agricultural Education for Women), which did such a great service in stimulating an interest in agricultural education. We desire to express our complete concurrence with the following reflection extracted from paragraph 2 of the report: 'It is between 14 and 16 years of age that so many of the girls brought up in rural districts at present lose touch of country life. No matter what facilities for agricultural education may be offered to them later, these girls will have neither the taste nor the aptitude for it. This is a matter for serious consideration in view of the fact that it is women no less than men who are responsible for rural depopulation, and that there is no inducement in the form of higher wages which will tempt them to return.' The fact is that the local conditions which have brought about rural depopulation, bad housing, low wages, lack of prospects, affect women even more than men, and that the influence of women might be exerted in the opposite direction if they had been taught to make more comfortable homes with less drudgery, and if they had the necessary knowledge to enable them to build up a social order in which the natural advantages of country life could be made to counterbalance the artificial attractions of the town."

§ 9. PURCHASE OF LAND BILL.

"We recommend that the principles of the Purchase of Land Bill should be adopted and an Act passed to give effect to it. We attach special importance to clause 11 of the Bill, which prohibits sub-division and sub-letting and we strongly advise that the principle of this clause should form an integral part of any purchase scheme."

§ 10. VILLAGE RECONSTRUCTION, INDUSTRIES, AND SOCIAL LIFE.

"The intimate connection between a plentiful supply of agricultural labour and an increase in the output of home-grown food—the primary object of our reference — was recognized in the early stages of our enquiry, and the recommendation with regard to farm wages contained in Part I. of our report was framed to meet the competition of other and better paid industries. But, in our opinion, the question is not merely one of wages ; the conveniences and interests of town life exercise an attraction upon the young rural labourer which can only be met by offering counter attractions in the country districts ; and no agricultural policy will be worth having which does not aim at a better developed social life in our villages, at the introduction of fresh industries into the country districts, and at a large increase in the rural population. To this end an effort must be made to break through the stagnation in the life of too many villages by offering better opportunities for social intercourse and amusement, by arousing a stronger feeling of corporate existence and responsibility, and by opening out improved prospects of advancement to the energetic and hard working. With the advance of education a desire for greater opportunities has arisen among the more active and ambitious of the younger generation, causing them to covet the greater scope for their energies offered in urban districts. The proposals made under this head of our report are designed to lessen the despondency of outlook sometimes associated with existing conditions and to provide a machinery, which does not at present exist, for the improvement of village life.

"The difference between villages, even in the same neighbourhood, is often marked. Some seem to carry outward evidence of the prosperity and happiness of their inhabitants, while the aspect of others, less fortunate, seems to indicate with equal plainness a dull and colourless outlook. In the former are seen smiling gardens, well cultivated and conveniently situated allotments, cottages in good repair, village playgrounds, and social clubs and reading rooms ; in the latter, with land in abundance around, we find cottages possessing no gardens or insufficient gardens, huddled together so as to reproduce some of the evils of town slums, and absence of all the amenities of life, and allotments (1) so distant from the centre of the village as to be difficult of access and inconvenient for cultivation, the whole presenting an appearance indicative of the conditions prevailing therein. Enquiry will usually show that the difference is due to the fact that in one village a guiding spirit has exercised a sustained policy of development, based upon a clear perception of the requirements of the inhabitants and a study of the best means of providing for them, while the other has been without these advantages. In this connection it has been pointed out that an examination of the maps of the Ordnance Survey reveals how lacking

(1) For rural allotments in England see the article in our issue for February 1928, page 155.

in system has been the development of the ordinary village. In its midst, even adjoining the village street, may be often found land let with large farms, which might better be used for housing or other public purposes, for providing gardens, cow pastures or allotments, or for occupation with adjacent cottages. But it is no one's business to take the lead in demanding a better scheme of use for the land, nor does any machinery exist by which a rearrangement could be carried out. An atmosphere of stagnation prevails, and it is not surprising that the best men in such districts prefer to try their fortune in places offering greater scope for their ambition. The less efficient remain, and the deterioration in the rural working population, of which complaint is often made, becomes an accomplished fact.

"We are of opinion that the machinery of the Parish Council, the Agricultural Committees of the County and the Board of Agriculture should be utilized for the purposes of village reconstruction, and that under proper conditions the necessary land should be acquired by compulsory powers if it cannot be acquired by voluntary agreement. If cottages are built or small holdings are created, we think that the inhabitants of the village should be given the option of tenancy or ownership, but that ownership should not carry with it the power of subdivision or of utilization for a different purpose than that for which the house was built or the holding created. The money required for a scheme should be advanced out of public funds and repaid by the parish council and the parties benefited, following the exact analogy of a scheme under the Small Holdings and Allotment Act, 1908 (1).

"We have been much impressed with the value of the work done by the Rural League in establishing village industries and of the Agricultural Organization Society in establishing women's institutes (2) and we recommend that either the Agricultural Organization Societies in the three countries or some analogous body should receive distinct grants for these specific purposes and that the task of fostering village industries and of forming women's institutes should be entrusted to them under the supervision and control of the respective departments of agriculture."

(1) *Ibid.* pages 158-159.

(2) See our issue for May 1917, page 17; and cf. (for Scotland) our issue for June 1918, pages 444-9.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Fifty-eight governments are now adherent to the Institute.

The Institute is a government institution in which each country is represented by delegates. It is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance, and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilising for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown (100 heller) (Austria-Hungary)	=	10 <i>d.</i>	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1 <i>s.</i> 1 ¹ / ₅ <i>d.</i>	at par
1 Deciatine (2 tchetwert) (Russia)	=	2.69906	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	4 <i>s.</i> 5 ¹⁶ / ₆₄ <i>d.</i>	at par
1 Drachm, gold (100 lepta) (Greece)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1 <i>s.</i> 7 ³³ / ₆₄ <i>d.</i>	at par
1 Franc (100 centimes) (France)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Leu (100 statinki) (Bulgaria)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Lira (100 centesimi, Italy)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Litre	=	{ 0.21998	gallons
		{ 0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ <i>d.</i>	at par
1 Mark (100 penni) (Finland)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	2 <i>s.</i> 2 ⁶¹ / ₆₄ <i>d.</i>	at par
1 Milreis, gold (Portugal)	=	4 <i>s.</i> 5 ¹⁹ / ₆₄ <i>d.</i>	at par
1 Peseta, gold (100 centimos) (Spain)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Peso, gold (100 centavos) (Argentina)	=	3 <i>s.</i> 11 ³⁷ / ₆₄ <i>d.</i>	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18 <i>s.</i> 0 ¹⁵ / ₆₄ <i>d.</i>	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold (100 kopeks) (Russia)	=	2 <i>s.</i> 1 ³ / ₈ <i>d.</i>	at par
1 Rupee, silver (16 annas) (British India)	=	1 <i>s.</i> 6 <i>d.</i>	at par
1 Talari (20 piastres) (Egypt)	=	4 <i>s.</i> 1 ¹¹ / ₃₂ <i>d.</i>	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold (2 fun or 100 sen) (Japan)	=	2 <i>s.</i> 0 ³⁷ / ₆₄ <i>d.</i>	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

ITALY.

COLLECTIVE FARMS IN THE PROVINCES OF PARMA, MODENA,
MANTUA AND SICILY (1).

In an article in our issue for May we spoke of collective farms in Italy, and in particular of those constituted by the journeymen of Emilia, which have an organization most interesting in form and most provocative of discussion. In order to complete the information then given we supply some further data as to the collective farms in the provinces of Parma, Modena, Mantua and Sicily.

§ I. THE COLLECTIVE FARMS IN THE PROVINCE OF PARMA.

As we had occasion to notice in the article already cited the chief aim of the collective farms in this province is to combat unemployment, which the diminished amount of employment afforded of late years by public works has accentuated. All these co-operative associations are of somewhat recent formation. Among the most efficient of them is the *Co-operativa agricola* of Sissa which was founded in 1913 and recently published a re-

(1) For the sources of this article, other than those mentioned in the text and the notes, see the sources cited in our issue for May 1918, page 366.

port on 1917 which is full of interesting data. This association cultivates altogether 359 *biolche* (1) of land held on lease of various owners. This enterprise yielded in 1917 produce of the value of 67,819.94 liras. Gross profits are represented by 25,757 liras as the revenue from live stock and 2,907.59 liras as the revenue from various sources. Expenditure reached the total sum of 96,115.27 liras; 35,889.75 liras being spent on wages to members or journeymen workmen. The share of members was 25,053.11 liras. We must also take into account 19,124.90 liras spent on manures and various material and 16,593.20 liras for rent. The other items of expenditure include works executed, taxes, rates, insurance premiums and losses. Net profits amounted to 369.06 liras. This sum is not considerable, but a large expenditure on labour and manure was necessary owing to the bad state of the land when it was taken over, and the crop of corn was poor owing to the unfavourable season.

The yield of forage was about 1800 quintals, that is about 30 quintals per *biolca* of meadow.

The advantages of collective farming in the Parmesan district, as evinced by this report, appear clearly if its results be compared with those obtained by individuals. Thus the co-operative association obtained five instead of four quintals of corn per *biolca*; it produced on an average ten as against seven quintals of maize, 30 as against 16 quintals of forage, 518 as against about 200 quintals of grapes, and 290 as against 200 quintals of milk.

As regards live stock, it possesses 103 as against 70 heads of live stock and derived thence a profit of 25,757 liras. The advantages of co-operation are yet more clear from the point of view of employment: nine engaged workmen and 20 persons receiving a share of profits supplied the association with 56,043 hours of journeymen's labour; whereas when managed by individuals the land provided only some 10,000 hours of work to eight engaged workmen and seven persons receiving a share of profits. The society has at present in hand the organization of institutions of thrift for the benefit of its members.

We will now examine the report of another co-operative association which has rapidly become important, and which, since it has a very capable manager, may be considered to be "the school and the experimental laboratory of agricultural co-operation in the Parmesan district."

This is the *Cooperativa agricola* of Fontanella. Its report is particularly interesting when it deals with gross production and the amount of labour employed, for it shows that this society, like that previously mentioned, has as regards these points made marked progress since individual management has been abandoned.

Above all, the Villano property, which began to be co-operatively farmed on 11 November 1911, was added in 1917 to the Colmignola and Belpiano properties. Next November the society will have more than

(1) The Parmesan *biolca* is taken to be approximately equal to $\frac{1}{2}$ hectare, but a hectare really contains 3 $\frac{1}{4}$ *biolche*.

doubled the area it leases, for it will have added to it the Palazzo Ortalli, Casabruciata and Casella properties, of which the two former are situated in the commune of Roccabianca and have an area of 310 *biolche*, while the last named lies in the commune of San Secondo and has an area of 138 *biolche*. Since the society, which now farms 300 *biolche*, will thus soon take over further 448 *biolche*, it will become the farmer of 748 *biolche* or about 245 hectares.

The following figures show the yield it has obtained from the lands it holds on lease :

Belpiano property : 90 Biolche = about 27 hectares.

Wheat	105.12 quintals	4,730.40	liras
Maize	184.20 "	6,815.20	"
Grapes	143.41 "	4,441.84	"
Milk	274.82 "	6,908.78	"
Potatoes	30.56 "	488.96	"
Forage (requisitioned) .	78.50 "	1,344.25	"
Wood for fuel		480.00	"
Various seeds		645.00	"

Colmignola property : 145 Biolche — about 45 hectares.

Wheat	139.30 quintals	6,268.50	liras
Maize	218.34 "	8,078.58	"
Grapes	261.92 "	6,286.08	"
Tomatoes	330.66 "	5,290.46	"
Potatoes*	75.32 "	1,205.76	"
Oats	22.26 "	667.80	"
Seeds	9.70 "	1,940.00	"
Milk	320.00 "	8,526.68	"
Forage (requisitioned) .	176.10 "	2,877.62	"
Beans	6.11 "	671.00	"
Wood for fuel		972.00	"

67,638.81

Gross profits from live stock 38,337.88

Various profits. 3,983.07

Total . . . 109,959.76 "

Before the co-operative society took over these properties their yield, as discovered by detailed enquiry, was as follows :

<i>Belpiano property.</i>		<i>Colmignola property.</i>	
Wheat	62 — quintals	Wheat	66 — quintals
Maize	60 — »	Maize	90 — »
Grapes	41 — »	Grapes	42 — »
Milk	110 — »	Tomatoes . . .	3.50 »
Potatoes . . .	3.80 »	Potatoes . . .	1.60 »
Seeds	2.60 »	Oats	21 — »
		Milk	102 — »

A simple comparison between these and the preceding data brings into relief the importance of the results obtained by the co-operative method of managing lands. The comparison between the staff now working on these lands and that previously employed on them is no less interesting.

On the Belpiano property two families which include four men formed the permanent staff. With very rare exceptions, no journeyman was ever employed. Under the management of the co-operative society four families are established on the property and they comprise eight men who, with two hired men, form the permanent staff of the farm. In addition to this permanent staff there are nine women, and men are often engaged by the day, so that 1200 days of work are provided in the year altogether. On the Colmignola property three families used to work. They comprised five men and very little labour was hired by the day. Under the co-operative system six families, established on the property, are its fixed staff, and labourers are hired by the day nearly all the year round and especially from spring to autumn. It may be reckoned with certainty that the labour now employed exceeds by 60 per cent. that employed previously.

Thus the society has not only obtained an increased yield but has also succeeded in giving occupation to a larger number of persons, and by thus reducing unemployment has attained to its essential aim.

The following is an account of its expenditure :

Fixed staff	12,318.00	liras
Labour employed by the day	26,581.00	
Indemnities to fixed staff for high cost of living	2,707.07	
Threshing and pressing	3,476.15	
Manures, sulphur, sulphates	5,461.10	
Forage	3,195.97	
Seeds bought for 1918	621.00	
Ploughing and sowing in 1916 chargeable to		
1917	13,278.63	»
Rent	12,908.04	»
General expenses	26,883.16	»
	107,430.12	»
Profits of the year	2,529.74	»

We add some data as to the live stock and its estimated value :

Belpiano property.

	Number	Value
Cows	13	15,400 liras
Bullocks	4	3,260 »
Draught oxen	6	9,220 »
Butchers' oxen	1	1,500 »
Bull calves	1	600 »
Calves	2	250 »
Young asses	1	300 »

Colmignola property.

	Number	Value
Cows	18	21,320 liras
Draught oxen	6	10,000 »
Bullocks	9	3,960 »
Calves	7	1,000 »
Bulls	2	1,900 »
Horses	6	7,900 »
Sows	4	3,500 »

Villano property.

Heifers	9	6,300 liras
Bull calves	2	1,000 »
Draught oxen	2	3,130 »

Total	93	90,540 »
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Finally we should recall that this co-operative society has neglected nothing which could be useful to agricultural labourers. Thus the fixed staff has obtained an indemnity to compensate for the high cost of living. Moreover the society has taken part in that regrouping of all agricultural co-operative societies in the provincial federation which is today an accomplished fact. It has adhered to the national federation of agricultural co-operative societies which is in course of organization and it is at present taking part in the foundation of an institution of thrift which is intended to improve the moral and material condition of its members.

On 25 February 1917 the agricultural co-operative society of Soragna called *Sempre Avanti* (Ever Forward) acquired legal form. It then had sixteen members and now has 64. It has a capital of 6,000 liras. It has taken on lease three properties having a total area of about 500 *biolche* or nearly 170 hectares. In order to take this land it had to apply for capi-

tal to the *Istituto Nazionale di Credito per la Cooperazione*, to individuals and to local financial establishments.

On 31 December 1917 there were on these three properties 91 heads of cattle and six horses worth 89,030.45 liras. This represents, as markets are at present, not less than 150,000 liras. The value of the machinery and the various implements and farming material reaches 33,796.65 liras.

From the data we have given, as from those we published in our May issue, it is evident that the movement for the establishment of collective farms in the province of Parma is making good progress, thanks to the activity, energy and enterprise of competent persons whose material is a population already well used to defence and labour organization and who can always depend on the *Istituto Nazionale di Credito per la Cooperazione* for support and advice.

§ 2. THE COLLECTIVELY HELD FARMS IN THE PROVINCE OF MODENA.

As regards the collectively held estates in the province of Modena, whether they have the form of colonies, leaseholds or freeholds, the following data have been collected by the *Federazione Provinciale delle Cooperative Agricole* :

The Agricultural Co-operative Society of San Lorenzo (San Prospero). — Constituted in 1911, this society has 25 members and has since 1913 held on lease of the *Luppi* religious foundation a property of 110 *biolche* (1). It was previously held in *métayage*, provided very little employment and had a poor yield. Its condition is now much improved. The members of the society find work on it constantly. Wheat, maize, forage and vines are principally grown on it.

The Agricultural Co-operative Society of Sorbara (Bomporto). — Even before this society was legally constituted in 1915, the *Lega-Braccianti*, a league of journeymen workmen, had acquired some land in *métayage*. The properties now held in *métayage* number six and have a total area of more than 200 *biolche*. Two of them are renowned for their production of the wild vines of Sorbara. The members number 98. Vines, wheat, maize, beetroot, tomatoes and potatoes are chiefly grown. The results obtained are so satisfactory that landowners offer land to the league to be taken over in *métayage*.

The Agricultural Co-operative Society of Novi (Mirandola). — This society has 200 members and leases two properties. One of them measures 163 *biolche*, and two thirds of its land lie in the valley. Its chief crops are wheat, maize and lucerne grass. The land is divided and sublet to members. The other property measures about 150 *biolche*. Producing conditions in general have markedly improved.

The Agricultural Co-operative Society of Civeno (Carpi). — This society

(1) The Modenese *biolca* is of 2836.47 square metres.

leases a property of 40 *biolche* which belongs to the religious foundation of Carpi. Its members number nine and all of them are constantly occupied, on the property, the yield of which has increased by 30 per cent. The system of distributing the harvest is followed.

The Agricultural Co-operative Society of Budrione (Carpi). — Until 1912 this society, which had legal form, farmed land held in collective *métayage*. Disputes within the society interrupted its activity, but some twenty members remained united and still farmed the property which has an area of 140 *biolche*. Results have been so good that the society has been able to undertake every year at its own cost the works necessary for bringing the land into order.

The Agricultural Co-operative Society of Quartirolo (Carpi). — This society was founded in 1911 in which year it leased two properties from the Congregation of Charity of Carpi. This land measures 37 hectares. The members number 18. Production has been more than doubled: a yield of 80 quintals of grapes has become one of 250 quintals; a yield of 50 quintals of wheat one of 150 quintals.

The Agricultural Co-operative Society of Limidi (Soliera). — This society, founded in 1911, has 34 members. It farms two properties, held in *métayage*, and having a total area of 230 *biolche*. The yield has been increased by 30 per cent. Two hundred instead of 150 quintals of wheat have been obtained; 60 instead of 30 quintals of maize; 200 instead of 100 quintals of grapes; and the production of forage has been doubled. Twenty heads of cattle are kept and 300 quintals of forage are for sale.

The Agricultural Co-operative Society of Quarantoli (Mirandola). — This society groups 96 members, and has for ten years leased a property of 127 *biolche* stocked with much live stock and all necessary implements. The members have shares of the crops which are especially tomatoes, maize and beans. As a model estate the large farm of about 900 *biolche* or nearly 300 hectares, called La Falconiera, was bought in 1918. The work of preparing the land is in full swing, and in due season the necessary drainage and dispositions and everything necessary for intensive and continuous agriculture will be undertaken. The enterprise is a bold one and is being watched with interest by all the local farmers.

The Agricultural Co-operative Society of Cividale (Mirandola). — After a long period of inertia this society, which has 27 members, was at last stimulated by the example of its neighbour at Quarantoli to enter into a contract of *métayage* with regard to 300 *biolche* of land divided into six holdings. By the terms of the contract produce and expenses are equally shared by the landlord and the society, and the society also pays in cash a due called *cortilatico* which varies with the fertility of the land.

The Agricultural Co-operative Society of Sozzigalli (Soliera). — This society farms two holdings held in *métayage* and having a total area of 80 *biolche* and leases a small holding of 10 *biolche*. The farming is collective. Produce is divided among the working members. Production has been increased by 40 per cent. The members number 54.

In this province, especially in its low-lying part, many other examples

are found of collective contracts for farming on the profit-sharing system, but we cannot deal with them because they are only oral. Most of these contracts are annual.

We should notice finally that the religious foundations of the Modenese district generally look with favour upon the spread of this tendency to hand over lands to associations of cultivators, and encourage it. Moreover the numerous and firmly established funds and banks of the district grant capital without difficulty at current rates to these societies, for long terms if necessary.

3. THE COLLECTIVE FARMS IN THE PROVINCE OF MANTUA.

The organization of the collective farms in the district of Mantua, or at least of some of them, is very like that which we have described as existing in the districts of Reggio and Ravenna. Some have however a slightly different character because they are exclusively concerned with lands held by the system of collective *métayage*. In the case of the former we should note that the co-operative farming of leasehold lands was first undertaken by consumers' societies. At Bondeno di Gonzaga, Pecognaga, Suzzara and Moglia there are important consumers' co-operative societies, comprising all the journeymen workmen enrolled in the leagues of defence, which have guaranteed one third of their capital. They have found occupation for some of their members on land which they hold on leases of three, nine and twelve years (1). The chief crops are wheat, maize, tomatoes and grapes. There is much live stock, especially stock giving milk, and ample use is made of chemical manures. But the intensive agriculture practised by these co-operative societies has obliged them to borrow large sums in order to obtain the capital necessary to building up their stock. Thus at the end of 1912 a society having a capital of 156,150 liras had a total debt of 213,426 liras, 65,500 liras being due to credit institutions and 53,445 liras to individuals, while 60,211 liras had been lent by members in the form of deposits made on terms fixed by the society, and 34,270 liras were owed to labourers' organizations. The considerable liability for interest, the high rents, repeated falls of hail, cattle disease and other causes made the early existence of these agricultural co-operative societies very uncertain.

Other societies have followed a different method, that of taking land in *métayage*. They have thus avoided the necessity to pay rents too high for their means, or to obtain, when credit was hard to find, the capital they would need for farming entirely on their own account. In their case journeymen workmen have united in a league of defence and have superseded families of *métayers*, taking over land on the terms on which the latter previously held it. The most important of these conditions impose an equal sharing of the produce and profits of live stock between the

(1) See the papers by Professor A. Serpieri and Dr. G. Mammi in our issues (*Monthly Bulletin of Economic and Social Intelligence*) for September and November 1913.

landowner and the *métayer*, and an equal sharing of expenses except the land-tax which is paid by the landowner only. The latter directs the farm and produces all the capital needed for it. The contract lasts for from three to twelve years. The leagues of defence which have undertaken the cultivation of lands hire men with families to look after the live stock; but the members are called upon in turn to do all the rest of the work of the farm.

The co-operative society of Bondeno di Gonzaga now farms 50 hectares of land on which are 70 heads of live stock; the co-operative society of Gabiana 80 hectares on which are 85 heads of live stock; the co-operative society of Suzzara 60 hectares on which are 100 heads of live stock; that of Mantua 100 hectares.

§ 4. THE COLLECTIVE FARMS IN SICILY.

Collective farms represent one of the forms of co-operation most widely spread in Sicily. Professor Giovanni Lorenzoni, technical delegate for Sicily to the parliamentary enquiry into the condition of peasants in the southern provinces, explains its historical origin as follows (Vol. VI, part IV, chap. V):

Collective farms arose almost everywhere in the island as an outcome of the leagues of defence whose activity was particularly great in the latter part of the nineteenth century. These leagues are made up of elements economically diverse, of small landowners, small leaseholders, settled labourers (*coloni*) and day labourers. Such a composition mitigates their effectiveness; for while day labourers seek for a rise in wages, small owners and leaseholders, who are sometimes obliged to hire labour by the day, cannot be favourable to it. The two classes are not therefore wholly willing to make common cause. Moreover when small leaseholders and *coloni* take land on lease or in *métayage* they naturally seek to obtain it on the most advantageous terms possible; but this aim of theirs is of little importance to the journeymen who earn a living by hiring out their labour by the day and not by taking land on lease or cultivating land which they hold by a *colono's* contract. For all these reasons the activity of leagues so composed must lack sequence and harmony; it must oscillate as one series of interests or another is necessarily sacrificed. Hence arises a necessity to find a new method of activity which will unite all the elements of the rural labouring population."

There is however another circumstance which has favoured the development of collective farms, namely the final growth of a conviction that the demand for higher wages must of necessity be limited by the productivity of the agricultural enterprise asked to pay the increase. For if wages pass a certain limit this enterprise must reduce the amount of labour it employs, and thus the peasants will obtain a higher rate of wages but a lessened number of days of employment and will lose more than they gain. This is the reason that the leagues, while they did not abandon

their former aim, that of obtaining higher wages and more profitable agricultural contracts by means of resistance and strikes, began to complement these methods by taking a direct part in production, collectively. In other words the peasants, united in co-operative societies, became leaseholders

The collective farms were thus formed, and may therefore be taken to be the result of a new conception, on the part of the peasants, of the economic struggle. "They perceived that their former tactics did not suffice to lead them to victory". Their new activity began soon after the period of the *fasci* and was stimulated almost simultaneously by two opposing parties, the Catholic party which founded the farm of Caltagirone and the socialist party which founded the farms of Corleone. Soon afterwards the *Madre Terra* of Castrogiovanni was founded, and later the farms of the province of Trapani. Since this time this method of farming has spread widely throughout Sicily. It has continued to attach, according to the method of foundation, to one of the two different political conceptions which have given birth to it, the Catholic and the socialist conceptions.

The Catholic co-operative societies are found to some extent everywhere, but are particularly numerous in the provinces of Palermo, Caltanissetta and Girgenti where they are grouped about other Catholic social organizations, especially rural funds. The socialist co-operative societies are also much scattered. They centre mainly in Trapani and its *circondario*, and Corleone and the neighbouring country which includes Piana dei Greci, Castrogiovanni and Catania.

The Catholic and the socialist collective farming movements differ only in their fundamental political conceptions and not in the view they take of the class struggle. As Professor Lorenzoni remarks, "collective farms must, for socialists, complete that defensive activity which is embodied in the leagues, and enable the agricultural proletariat to rise from the status of wage-earners or of small *coloni* or leaseholders to that of free leaseholders, and this in the person not of isolated individuals but of the class as a whole. It is the emancipation of the class which is desired: it must be set free from a useless middleman who, to increase his profits, is naturally led to weigh upon the weakest. It is the participation of the class in the benefits and the progress, possible only through collective organization, which is desired.

"Therefore the aim should not be the mere constitution of various small farming businesses held together in a society only by the fact that they have taken a common lease of the lands they will cultivate separately. There should be a tendency towards the formation of the single large farm of a society which will pay the wages of its members. In other words these members will be their own employees and eventually they will share the profits of the common enterprise.

"The socialists believe that the realization of this ideal will bring about the emancipation of the peasant from the middleman and the reconciliation of the interests of all agricultural labourers, whether small lease-

holders, *coloni* or day-labourers ; for they conceive that all these categories of men can be fused into one having common interests.

"The Catholic collective farming movement has aims less high. It is content to provide a uniting link between small leaseholders, and *coloni* or *borgesi*, enabling in particular the limitation of excessive competition among them, and saving at the same time the cost of a useless middleman. These collective farms offer the owner a profit equal to or greater than that he previously received from the middleman, and yet it is believed that they will always exact from the peasant less than did the middleman.

"They do not think of making their enterprise collective in form, but they propose that from its outset members shall cultivate for themselves, in separate lots, the lands leased collectively. They do not however leave the members entirely to themselves when once the land has been divided and distributed, but they help them, or at least they have decided to help them, with credit and the purchase in common of manures, and machinery and in other ways, thus facilitating or completing the work of the cultivator while they respect his absolute independence.

"The economic difference between socialists and Catholic collective farming is therefore large in theory ; but in practice it is non-existent, for it has hitherto been possible only partially to realize the ideals which inspire the socialist co-operative societies. As regards their present constitution and their practical economic activity these two forms of co-operative societies are much alike. Both are, at bottom, agents which supersede the speculating middleman by the compact mass of the peasants. They eliminate him for the advantage of peasants ; and also of landowners, for in order to obtain land the societies are ready, and are sometimes obliged by the pressure of competition, to offer more than did this middleman, the *gabellotto*, while at the same time their guarantees for their payments are equal to his."

There are no complete or recent statistics as to these societies. We reproduce data as to a small group of leaseholds in the province of Trapani, enrolled in the provincial federation which was constituted on 26 April 1916:

Situation on 31 March 1918.

Society	Place	Members	Capital	Lands	Rent
			Liras	Hectares	Liras
1. Agric. Co-oper. Society (1)	S. Marco (M. S. Giuliano)	1815	116,447	4,222	200,756.96
2. " " "	Marsala	1800	70,601	2,590	163,019.11
3. " " "	(2) Paceco	519	57,198	711	38,854.80
4. " " "	Vita	113	19,565	665	34,467.40
5. " " "	(3) Ballotta (Trapani) . .	166	9,000	250	20,000.00
6. " " "	Calatafimi	160	5,000	250	20,000.00
7. " " "	Salaparuta	180	7,100	600	38,000.00
8. " " "	Salemi	200	8,000	700	35,000.00

(1) Obtained the 3000 lira prize awarded by the Ministry of Agriculture, Industry and Trade in 1910 and the 1500 lira prize of the *Cassa Centrale Vittorio Emanuele* of Palermo in 1911. It has on its land 115,000 vines and is organizing a cellar society.

(2) Owns real estate.

(3) Has premises which it owns at Ballotta.

This federation proposes to give unity of aim and activity to the co-operative societies constituted in the province, preventing them from competing with each other when there is question of taking land on lease, making tenders for works to be executed or buying products or articles of consumption, and at the same time respecting their autonomy.

The federation intends also itself to conclude contracts of lease and make tenders, directly, subsequently distributing to its member co-operative societies the land to be cultivated and the works to be executed. It also proposes to buy, and if possible to manufacture, on behalf of the federated societies, agricultural machinery and implements, manures and other miscellaneous articles, to set up stores where agricultural produce can be preserved and sold, to organize sales within the country and exportation abroad, to provide for the development of co-operation throughout the province, and to obtain from the public authorities laws and reforms protecting co-operative associations and benefiting the agricultural labouring population and agriculture in general.

The three following societies, which also belong to this province, are not federated.

Name	Place	Members	Capital	Cash	Lands	Rent
—	—	—	Liras	Liras	Hectares	Liras
Società Agraria Comm. S. Marco (Monte)		371	—	14,276	1,740	101,722.41
Società Agricola	Parianna	252	1,011,950	5,266	214	11,941.20
Lega Cattolica	Camporeale	211	1,505,700	7,779	1,187	27,700.00

The last report of the *Banco di Sicilia*, as to the agricultural credit afforded in 1917, shows that the number of the intermediate bodies leasing land collectively in the island rose in that year from 37 to 40. We give, distributed among provinces, data as to the leases current on 31 December 1915.

Province	Number of societies	Area held on lease
—	—	—
Palermo	8	2,042.3509 hectares
Catania	4	2,098.9625 »
Girgenti	6	4,105.3059 »
Trapani	9	11,444.0157 »
Caltanissetta	13	8,693.9518 »
Totale	40	28,284.5866 hectares

The quantity of land thus leased by these societies has diminished for it was previously 28,809.4854 hectares.

(1) *Rendiconto e bilancio consuntivo sul servizio del credito agrario, esercizio 1917. Consiglio generale del Banco di Sicilia. Sessione ordinaria del 1918. Palermo, Giannitrapani, 1918.*

§ 5. THE RESULTS OBTAINED.

The results obtained by collective leases are various ; the difficulties in their way, both those which have been overcome and those which subsist, are numerous and sufficiently serious.

The conversion of the labourers into farmers, effected by the agency of association, has procured for them, above all, a more exact knowledge of the means of agriculture, as regards both the cost and the productivity of these means. It has given birth among them to a more accurate sense of their own responsibility. It has ensured to them, and especially to the labourers of Sicily who are still bound by some feudal customs, a greater freedom of thought and activity.

The associated labourers have not always succeeded in obtaining for their work higher pay than that they received before collective leasing was initiated. But it is certain that in many districts this method of holding land has taken an effective part in reducing or suppressing unemployment and emigration, in that it has distributed the profits of farming among a larger number of persons. In many cases it has contributed to the realization of true progress.

Since the farming cultivators have an obvious interest in obtaining a higher yield, gross production has increased, in some cases almost doubled. It should however be noted that, on the other hand, a co-operative society must pay rent at a higher rate than the individual peasant, is sometimes obliged to pay large sums as interest on liabilities, disposes of little capital, and cannot obtain credit at a privileged rate.

In practice many shortcomings have been remedied. It is still however necessary to improve, as regards technique and book-keeping, the organization of this new method of farming land, and such is the aim set before itself by the *Ufficio di Ispezione e Assistenza per Cooperative Agricole* which was formed by the *Istituto Nazionale di Credito per la Cooperazione*.

A wider diffusion of these characteristic and interesting associations will follow not only on the provisions of the decree of 20 September 1917, No. 1676, which we have already examined (1) and which gives labourers' co-operative societies facilities for leasing State lands, but also on the provisions of the decree of 4 August 1918, No. 1218 (2), which satisfies one of the oldest aspirations of Italian agricultural societies, the desire namely that land belonging to local institutions shall be granted to them. This decree provides that lands admitting of cultivation and belonging to provinces, communes and public charities can be granted on lease, at will, on receiving the prefect's authorization, to legally constituted agricultural co-operative societies. If the lease of such land be offered by auction these societies will have a preferential right to take it on the terms on which

(1) See our issue for May 1918, page 382.

(2) See *Gazzetta Ufficiale del Regno d'Italia*, No. 213, Rome, 9 September 1918

it is offered. No such contracts may have a duration of more than nine years. With the approval of the authority responsible for the land in question, and after the advice of the Chamber of Agriculture has been taken, their duration may however be extended if an obligation to execute certain works of improvement be imposed on the lessee society. Rent must be paid half-yearly and in advance, and the society must make a cautionary payment in cash to guarantee performance of all the obligations imposed by the contract. It may, if it so desire, make this payment in half-yearly instalments spread over a maximum period of three years to begin at the date of the contract.

These two measures are indubitably the best proof that agricultural day-labourers are ready to assume the burdens of agricultural enterprise, and they are further a proof of the confidence which the government places in these organizations.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

CANADA

THE ORGANIZATION OF THE FARMERS OF THE PRAIRIE PROVINCES. — *The Grain Growers' Guide*, Winnipeg, 26 June 1918.

The great commercial organizations built up by the farmers of the prairie provinces in the last twelve years are a proof that farmers are capable of united action. They are the United Grain Growers, Limited, the Saskatchewan Co-operative Elevator Company, and the trading department of the Saskatchewan Grain Growers' Association, and they group more than 60 000 farmer shareholders. They are working 606 country elevators, two large public terminal elevators at Fort William and Port Arthur and two large private terminal elevators at the same points ; and they are marketing about a third of the total crop of these three great grain producing provinces. The United Grain Growers are also conducting a grain exporting business which has its headquarters at New York and was before the war one of the largest businesses of its kind on the American continent. Two of these farmers' organizations have undertaken the distribution of farm machinery, lumber, flour, coal and many other commodities used on farms ; and in this department alone the annual volume of business now represents a value of more than \$7,000,000. A printing and publishing plant, worth \$250,000, employs 153 people and publishes the most widely circulated farming paper in Canada. There are a large office building, hundreds of coalshed and flour warehouses and several large machinery warehouses. Three thousand carloads of live stock are annually despatched ; there are a large flour and fodder warehouse on the Pacific coast and an immense extent of timber in northern British Columbia ; and a land company sells and appraises land. These facts give a brief survey of the commercial activity of the organized farmers.

In carrying on their work the farmers' companies employ about 1,300 persons. Their paid-up capital is nearly \$3,000,000 and their reserve funds amount to \$2,000,000. Their assets exceed \$12,000,000 and since the outbreak of war they have paid more than \$1,000,000 in cash as war taxes.

Their first commercial enterprise was that of trading in grain. Seventeen years ago the first Grain Growers' Association came into existence as a protest against abuses in the grain trade, but the commercial Grain Growers' Grain Company was not founded until the summer of 1906. It became active in September ; and at the end of its first year of business it had handled 2,300,000 bushels of grain and made a profit of \$790 on a paid-

up capital of nearly \$ 12,000. It aroused the animosity of the commercial organizations, but nevertheless in its second year of business it handled 5,000,000 bushels. In 1912 this quantity had reached 27,000,000 bushels. In that year the company embarked on several new enterprises. The Manitoba government had secured 176 elevators in 1910 and had worked them for two seasons at a heavy loss. In 1912 they were leased to the Grain Growers' Grain Company which moreover bought and constructed thirty elevators in Saskatchewan. It is now operating a total number of 199 country elevators. In 1912 it also leased a terminal elevator at Fort William, having a capacity of 2,500,000 bushels, which it still works, and through which a quantity of grain varying from 11,000,000 to 28,000,000 bushels has passed annually.

In 1912 also it secured 300,000,000 square feet of timber in northern British Columbia on the line of the Grand Trunk Pacific Railway. Owing to unfavourable conditions in the lumber trade the company became active in this sphere only in 1917 when it erected plant worth \$ 250,000.

Another new departure in 1912 was the opening of the company's co-operative supply department which has steadily increased and developed and had an annual turnover of about \$ 3,000,000 when the company amalgamated.

When the Grain Growers' Grain Company was founded the farmers intended that it should eventually handle their grain, placing it on the European market before it left their hands. The company therefore soon entered the exporting business, at first suffering losses which at the end of the business year 1913 amounted to more than \$ 200,000. Next year their exporting business was reorganized, the Grain Growers' Export Company being founded. It rapidly developed a very large business, exporting more than 43,000,000 bushels in its first year of activity. In the year which ended in August 1916 it exported 90,000,000 bushels, being thus one of the largest exporting businesses on the American continent. Since the United States have entered the war all the exporting organization of the company has been taken over by the Wheat Export Company and has worked in the service of the allied governments.

To resume : the Grain Growers' Grain Company, founded in 1906, built up in eleven years an enormous business, united 20,000 shareholders, and made in twelve years profits amounting to nearly \$2,000,000 which enabled an annual distribution to the shareholders of 10 per cent. dividends, and very generous grants, amounting altogether to nearly \$100,000, to the provincial associations in Manitoba, Saskatchewan and Alberta and for educational work.

The second of the big farmers' companies to undertake trading was the Saskatchewan Co-operative Elevator Company. It was incorporated as a farmers' company in 1910 when the government agreed to advance 85 per cent. of the cost of constructing and buying its elevators. Its first elevator was opened in 1911, and 46 of them were opened for the handling of that year's crop. Their number increased annually, and the 1917 crop was handled by the company in 261 elevators. In 1911-12 the company hand-

ed 3,250,000 bushels of grain, which quantity had increased in 1915-16 to 43,000,000 bushels. The paid-up capital has grown steadily and is now nearly \$1,000,000, while reserves amount to more than \$600,000 and the company's total assets to nearly \$1,500,000. Profits have amounted in six years of business to \$1,500,000.

In 1917 the company built at Port Arthur at a cost of \$1,400,000 a modern public terminal elevator with a capacity of 2,500,000 bushels which can be expanded to 10,000,000 bushels. In the same year it began the erection at Port Arthur of a large private terminal elevator, connected with the public one. The private elevator will cost about \$600,000 and will be ready for use on 1 November of this year.

The company had 2,565 shareholders in its first year and now has more than 20,000 of them. It employs 475 persons.

The Alberta Farmers' Co-operative Elevator, Limited, has headquarters at Calgary. It modelled itself on the Saskatchewan company and received practically the same assistance from the provincial government for the construction of its elevators. It was incorporated by Act of the provincial legislature in 1913. At the end of its first year of activity it had 51 elevators, and this number increased year by year until in 1917 it had reached 146. The paid-up capital of the company in its first year was more than \$100,000 and at the end of 1917 more than \$560,000, the subscribed capital being \$1,240,000 and total assets nearly \$3,000,000. From the beginning the company worked in close connection with the Grain Growers' Grain Company, employing it as its selling agency.

In its first year of business it handled 3,770,000 bushels of grain, in 1915—the year of the big crop—19,320,000 bushels. Its profits in four years amounted to more than \$570,000. In its first year it marketed 141 carloads of live stock, in 1917 it marketed 1,242 carloads. It carried on a business of co-operative supply, in the course of which it consigned more than 100 carloads of goods in 1913-14, and as many as 1,400 carloads, in addition to a quantity of farm machinery, in 1917.

In September 1917 this company agreed to amalgamate with the Grain Growers' Grain Company and together they formed the United Grain Growers, Limited.

Since the time of this amalgamation the United Company, has formed a land company, organizing under Dominion charter the United Grain Growers' Securities Company, Limited. The system of selling farm lands in West Canada has long been subject to considerable abuses, and for this reason the United Grain Growers decided to do business purely on a commission basis.

The Saskatchewan Grain Growers' Association, founded in 1900, was the pioneer of all organizations of this kind in West Canada. It decided to establish a central wholesale trading department, for the service of local associations only, in 1914, in which year the new department became active. In 1914 its sales were of the value of \$302,000 and its profits amounted to about \$9,000. In 1915 the corresponding sums were \$850,000 and \$15,000; in 1916 sales surpassed a million dollars and profits were more

than \$15,000. In 1917 sales were \$1,600,000 and profits nearly \$36,000. In 1918 sales have increased by nearly 60 per cent. since last year.

Of the local associations of the Saskatchewan Grain Growers' Association 372 have been incorporated. The association has a total membership of 40,000.

GREAT BRITAIN AND IRELAND.

ASSOCIATIONS FOR KEEPING AND BREEDING RABBITS.

The following memorandum, dated 5 July 1918, has been addressed to Horticultural Sub-Committees by the Food Production Department of the Board of Agriculture and Fisheries.

"At the instance of the Food Production Department, some of the leading rabbit-breeders and keepers throughout the country have formed an association registered under the title of the National Utility Rabbit Association. The Association is established in premises at the Model Farm Neasden, London, N. W., where it has formed a Central Breeding Station and Stud Exchange, stocked with rabbits of the best breeds.

"1. *Objects of the National Utility Rabbit Association.* — The primary object of the Association is to build up as quickly as possible a large stock of the best utility rabbits. The rabbits from the Central Station will be sold at the lowest possible prices to district breeding-stations to be set up in different parts of the country. The district stations will in turn supply, at lowest possible prices, breeding-stock to smaller stations in villages and towns. The ultimate object of the Association is to provide, through these stations, rabbits for keeping by private persons in town and country and thereby to increase largely during the next twelve months the supply of rabbits for food purposes.

"Each district breeding-station will be a 100-doe centre, and will be kept by a person who already has 50 rabbits and who is willing to keep at least 100 breeding does. The smaller breeding-stations will be 20-doe centres and will be kept by persons who undertake to maintain a stock of at least 20 breeding does.

"The Department understand that already 200 persons have expressed their willingness to establish a 100-doe centre.

"2. *Advantages of Membership of, and Affiliation to, the Association :*

"(i.) Purchase of rabbits through the Association at lowest possible prices.

"(ii) Advice in procuring accessories and foodstuffs necessary for the keeping of rabbits.

"(iii) A share in the work of the Association in promoting work of national utility.

"(iv.) Expert advice on all matters relating to the keeping of rabbits.

"3. *County Organization.* — It is suggested that the County Horticultural Sub-Committee should take the initiative in organizing the county

scheme, and the following proposals as to method are put forward by the Department with the object of assisting the Committee and ensuring a measure of uniformity in each county : —

“ At the request of the Department the National Utility Rabbit Association is preparing a list of persons in each county prepared to establish forthwith district breeding-stations (100-doe centres).

“ The duties of the Superintendent of the 100-doe centre will be :—

“ (a) To maintain not less than 100 breeding does and the necessary number of bucks.

“ (b) To sell at agreed prices to the Central Breeding Station or any other breeding centre affiliated to the Association a portion of his stock suitable for breeding.

“ In the case of pedigree stock the proportion available must vary from time to time, and the exact proportion to be disposed of must be a matter of conference between the Secretary of the Association and the owner of the station.

“ (c) To maintain the stud bucks supplied to him from the Central Breeding Station for the use of the breeding centres in his district.

“ (d) Generally to assist the rabbit clubs in his district.

“ (e) Each centre shall be self supporting.

“ Generally speaking it will be found that one district breeding-station will supply two or three Rural Districts, but that one station or even more will be required in each Urban District.

“ The Horticultural Sub-Committee will probably desire to delegate the organization of rabbit-keeping in the neighbourhood of district breeding stations to its local (District or other) Committee. Committees which adopt this course will probably find it convenient to elect the keeper of the District station as a member of their Committee.

“ The Department consider that the best way in which the Horticultural Sub-Committee can assist the Association will be to secure as soon as possible, through their District and Village Committees, the formation of rabbit clubs in every village and small town in the county.

“ 4. *Rabbit Clubs.* — Wherever a number of persons desire to keep rabbits co-operatively, they should form a rabbit club and either establish a 20-doe centre or become associated with such a centre already established in their immediate neighbourhood. All these clubs should affiliate with the National Utility Rabbit Association. The fee for such affiliation for a club of 20 members or any fraction thereof is 5s. per annum. Clubs of more than 20 members shall pay a fee of 5s. per annum for every 20 members or part thereof, *i.e.*, a club of 55 members will pay a fee of 15s. per annum. In addition, clubs may purchase shares at the rate of £1 per share. The affiliation fee carries with it the right to enjoy the privileges attaching to affiliation with the Association which are set out in paragraph 2.

“ Any person desirous of becoming a Vice-President of the Association may do so on payment of £10 10s. or a Life member on payment of £5 5s. Anyone joining the Association as a member, Vice-President or Life mem-

ber will be entitled to purchase stock for breeding, together with such material as he may require, direct from the Central Breeding Station.

"Some time must elapse before keepers of 20-doe centres are in a position to provide rabbits required for keeping by members of their club, but during this period, and subsequently when necessary, they will be entitled to apply to the 100-doe centre or the Central Breeding Station for a fair allocation of stock for this purpose. Similarly, a 100-doe centre short of stock will be supplied direct from the Central Breeding Station in London, which will supply all the stock that may be required. It is important that all rabbit clubs, both those already in existence and those to be formed, should affiliate with the National Utility Rabbit Association so that rabbit-breeding may be developed on national lines.

"5. *Rabbit Club Rules*. — Each rabbit club should be properly constituted with a Secretary and Treasurer and should have properly drawn-up rules. A draft set of rules will be sent from the Department for distribution to the subsidiary organizations of the Horticultural Sub-Committee. These are model rules, and are only meant to serve as a guide. New clubs may prefer to alter them to suit local requirements, but uniformity is very desirable.

"6. *Prices of Rabbits*. — The National Utility Rabbit Association has been registered under the Industrial and Provident Societies Acts, 1893 to 1913, and trading transactions which it carries on are undertaken in the interests of members and affiliated societies, and not with the object of making profit. The policy of the Association with regard to prices is to bring the utility rabbit within the reach of every cottager and allotment holder, but it must be remembered that the prices of the finest pedigree stock, as distinguished from the utility stock, must always be higher. The Association will fix a list of prices of utility rabbits to be supplied from the Central Breeding Station to the 100-doe centres; these prices will also rule for utility rabbits supplied from the 100-doe centres to the 20-doe centres.

"7. *General Information*. — All associations should apply to the Food Production Department for pamphlets and leaflets on rabbit-keeping and breeding."

SWEDEN.

CO-OPERATIVE DAIRIES IN 1916. — *Sveriges officiella statistik: Mejerihandtering år 1916*
av Kungl. statistik centralbyrån. Stockholm, 1918.

Since 1890 brief statistics as to the production of dairies have appeared every five years in the series called "Publications of the Royal Administration of Agriculture". Since 1913 these statistics have been notably extended and modified. By a royal order every person in the dairy industry must furnish annual statistics as to his business. This material must be worked up and published by the Central Office of Statistics.

The dairies are of four different kinds. *Co-operative dairies* are asso-

ciations of milk producers for the utilization of their milk and sometimes also of milk supplied by others and for the sale of dairy produce for the common profit of members. The *dairies of the domains* are those which use milk derived exclusively or mainly from the proprietor's own farms. The *purchasing dairies* treat milk and cream bought from outside sources. Intermediate between these two latter categories are the *purchasing dairies of the domains* which treat milk derived from the proprietor's byres, but also, and in greater proportion, milk bought elsewhere. These different sorts of dairies were distributed as follows in the country and in towns in 1916:

	Country	Towns	Total
Co-operative dairies	630	39	669
Dairies of the domains	266	1	267
Purchasing dairies of the domains.	158	3	161
Purchasing dairies	533	68	601
Total in 1916	1,587	111	1,698
» » 1915	1,554	109	1,663
» » 1914	1,521	106	1,627
» » 1913	1,537	113	1,650

The number of suppliers of milk reached 103,318; and included 73,063 suppliers of milk to the co-operative dairies and 30,255 suppliers to the other dairies. The staff of the dairies comprised 5,598 persons, namely 2,414 men and 3,184 women.

The quantity and value of the milk and cream supplied to the dairies are shown by the following figures:

	Milk		Cream	
	Weight No. of 1,000 kilogr.	Value in crowns	Weight No. of 1,000 kilogr.	Value in crowns
Co-operative dairies	756,882	98,003,282	1,017	797,902
Other dairies . . .	368,047	50,994,786	313	239,563
Total 1916 . .	1,124,929	148,998,068	1,330	1,037,465
» 1915 . .	1,066,586	122,247,065	1,227	910,414
» 1914 . .	1,238,669	112,745,732	1,696	1,082,800
» 1913 . .	1,274,108	111,669,123	3,198	2,235,525

The average price per kilogramme of milk was 12.9 öre in the co-operative and 13.9 öre in the other dairies. The price is lower in the co-operative dairies because they often return skimmed milk and butter-milk to the suppliers making no charge or a very small one.

	Co-operative dairies		Other dairies		All dairies	
	Weight (1000 kg.)	Value (1000 cr.)	Weight (1000 kg.)	Value (1000 cr.)	Weight (1000 kg.)	Value (1000 cr.)
Unskimmed milk sold.	108,849	18,881	66,493	11,249	175,342	30,130
Cream sold.	6,788	7,490	4,488	5,103	11,276	12,593
Butter.	21,979	66,774	6,266	18,938	28,245	85,712
Whey butter.	19	48	102	250	121	298
Cheese.	3,594	5,515	10,013	16,894	13,607	22,409
Derivatives of milk.	52	56	997	1,140	1,049	1,196
Skimmed milk returned to suppliers without charge.	131,560	2,236	2,094	38	133,654	2,274
Skimmed milk sold to suppliers.	306,926	5,315	75,559	1,385	382,485	6,700
Skimmed milk sold to others.	81,954	5,104	49,847	3,291	131,801	8,395
Skimmed milk used to feed live stock.	2,223	38	15,212	423	17,435	461
Buttermilk.	31,404	934	11,622	386	43,026	1,320
Whey.	22,018	175	89,367	738	111,385	913
Total.	—	112,566	—	59,835	—	172,401

Whole milk and cream are directly sold in far less proportionate quantities in co-operative than in other dairies. Of 1,000 kilogrammes of milk and cream, it may be said that 141.9 kilogrammes of milk and 8.8 kilogrammes of cream are sold in co-operative dairies, and 179.1 kilogrammes of milk and 12.1 kilogrammes of cream in other dairies. In this respect there is also a marked difference between country and town dairies. To trade in milk is often the principal object of the latter so that they convert only a small part of their supply. But the manufacture of dairy produce is the chief object of country dairies. The average price of a kilogramme of unskimmed milk was 17.3 öre in the co-operative and 16.9 öre in the other dairies. The difference between the average cost price and selling price of a kilogramme of unskimmed milk, that is to say the dairy's profit, was 4.4 öre in the case of the co-operative and 3 öre in that of the other dairies.

The manufacture of butter has had much more comparative importance in co-operative than in other dairies. In co-operative dairies 28.7 kilogrammes of butter have been made for every 1,000 kilogrammes of milk and cream received, in the other dairies only 16.9 kilogrammes. The manufacture of every kilogramme of butter absorbs on an average 25.8 kilogrammes of milk in co-operative and 26.1 kilogrammes in other dairies. To produce butter a total quantity of some 732 million kilogrammes of butter has been used. The average price of a kilogramme of butter has been 303 öre.

As regards cheesemaking, 7,821,118 kilogrammes of rich cheese, 4,571,137 kilogrammes of semi-rich cheese and 537,557 kilogrammes of cheese which is not rich have been produced, the prices being respectively 193 öre, 140 öre and 100 öre a kilogramme. The co-operative dairies made 4.5 kilogrammes of cheese for every 1,000 kilogrammes of milk they received, the other dairies 29.4 kilogrammes.

As regards their utilization of the skimmed milk there is an essential difference between co-operative and other dairies. The former returned gratis 25.2 per cent. and sold at a low price 58.7 per cent. of their skimmed milk to the suppliers; the latter returned to them gratis only 1.5 per cent. and sold them 52.9 per cent. Of the residue, the co-operative dairies sold 15.7 per cent. to the public and used 0.4 per cent. to feed live stock; the other dairies appropriating 34.9 and 10.7 per cent. to these respective purposes. The average price of a kilogramme of skimmed milk sold to the suppliers was 1.8 öre, of a kilogramme sold to the public 6.4 öre, of one sold to feed stock 2.6 öre.

The total expenses of co-operative dairies amounted to 13,307,563 crowns, or 17 crowns 35 öre for every 1,000 kilogrammes of milk and cream they received.

SWITZERLAND.

THE SWISS PEASANTS' UNION AND THE SWISS PEASANTS' SECRETARIAT IN 1917. — *Vingtième rapport annuel de l'Union suisse des paysans et du Secrétariat des paysans suisses*. 1917. Brouge, Secrétariat des paysans suisses, 1918. 8vo., 144 pp.

At the beginning of 1917 the Swiss Peasants' Union comprised the following 28 sections:

1. Swiss Society of Agriculture	62,390
2. Federation of Agricultural Societies of Romanic Switzerland	25,678
3. Ticinese Society of Agriculture	4,043
4. Swiss Society of Alpine Economy	1,000
5. Federation of Agricultural Co-operative Societies of East Switzerland.	15,578
6. Federation of Agricultural Co-operative Societies of the Canton of Berne and neighbouring cantons	20,000
7. Federation of Agricultural Co-operative Societies of Central Switzerland	4,200
8. Federation of Agricultural Co-operative Societies of North West Switzerland	6,000
9. Zurich Federation of Agricultural Associations and Syndicates	5,700
10. Agricultural Co-operative Society of Worb.	140
11. Swiss Federation of the Syndicates of Breeders of Brown Cattle.	6,687

12. East Swiss Federation of the Syndicates of Breeders of Brown Cattle	2,496
13. East Swiss Federation of the Syndicates of Breeders of Red and White Cattle	12,892
14. East Swiss Federation of the Syndicates of Breeders of Red and White Cattle	1,200
15. Swiss Federation of the Syndicates of Breeders of Black and White Cattle	500
16. Federation of Cheesemaking and Dairy Societies of North East Switzerland	13,900
17. Federation of Cheesemaking and Dairy Societies of North West Switzerland	7,352
18. Federation of Societies for Raising the Value of Milk in Central Switzerland	3,500
19. Federation of Cheesemaking Societies of St. Gall	1,000
20. Federation of Cheesemaking and Dairy Societies of Argovia	6,740
21. Federation of Cheesemaking Societies of Thurgovia	2,000
22. Dairy Federation of Vaud and Friburg	7,269
23. League of Peasants and Labourers of the Basle Country	1,000
24. Federation of Argovian Peasants	1,000
25. Swiss Federation of Under-Foresters	700
26. Association of Horticulturist of Vaud	90
27. Swiss Union of Agriculturists' Mills	1,000
28. Swiss Association of Concessionaries of Distilleries.	680
Total	214,735

The Swiss Peasants' Union is thus at present composed of 28 sections which have altogether 214,735 members. There has been an increase in the membership of 16,974 members since the preceding year. Many agriculturists belong to several associations and therefore duplication must be taken into account in considering the total membership, but this none the less denotes a very satisfactory development on the part of agricultural associations.

UNION OF SOUTH AFRICA.

AGRICULTURAL CO-OPERATION IN SOUTH AFRICA. — *Official Year Book of the Union of South Africa*, No. 1, 1917. Pretoria, 1918.

A general co-operative movement was initiated in Cape Colony in 1905 when an Act was passed which authorized loans, not exceeding the total sum of £150,000, to be made to farmers and viticulturists for the general purposes of agriculture. The government appointed an expert to organize the farmers, and in due course eighteen co-operative socie-

ties, namely nine dairy companies and nine companies of wine producers, were established and were registered as limited liability companies. In addition a few syndicates were formed for the purchase, with loans obtained from the government, of such requisites as fencing material, windmills and threshing machines to be used by the members of the syndicates in common.

The hopes entertained of these various co-operative societies at their foundation have on the whole been disappointed. A few of the societies are doing well and others are maintaining themselves with difficulty, but many have signally failed.

To supplement the article on agricultural co-operation in South Africa, outside Cape Colony, which appeared in our issue for June 1918 (1), we give some comparative figures for the whole of the Union which refer to the years from 1911 to 1916.

	1911	1912	1913	1914	1915	1916
Numbers of societies	30	21	21	19	18	19
Membership on 31 December . . .	9,948	11,558	12,159	11,862	10,648	10,601
Produce sold on behalf of members						
Maize (No. of bags)	759,000	879,000	633,452	740,706	919,891	644,599
Tobacco (lbs)	1,246,076	2,496,635	3,464,514	2,000,000	2,057,203	1,544,076
Other goods (value)	£ 108,000	£ 104,000	£ 87,434	£ 90,746	£ 107,039	£ 76,159
Value of machinery, etc, sold to members.	£ 142,000	£ 167,000	£ 193,684	£ 136,719	£ 139,032	£ 140,352
Loans from L. and A. Agricultural Bank Amount (including interest) due on 31 December	£ 207,244*	£ 234,177	£ 299,273	£ 418,082	£ 348,515	£ 354,730

(*) On 31 March 1918

Part II: Insurance and Thrift

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES.

CANADA.

INSURANCE AGAINST HAIL, IN SASKATCHEWAN IN 1917 (1). — *Canadian Finance*, Vol. IX, No. 13, Winnipeg, 3 July 1918.

The report recently placed before the directors of the Saskatchewan Hail Insurance Association classified as follows the losses on which indemnities were paid in 1917:

On 134,499 acres from 5 to 10 per cent. of damage was sustained;

» 149,554	»	»	11	»	33 $\frac{1}{2}$	»	»	»	»	»
» 84,793	»	»	34	»	66 $\frac{2}{3}$	»	»	»	»	»
» 92,447	»	»	67	»	100	»	»	»	»	»

The association received in 1917 some 5,000 claims covering 9353 quarter sections. Only twenty claimants applied for a reinspection after the first decision on their claims, and these twenty cases were satisfactorily settled without appeal to arbitration.

The total area in respect of which claims for indemnification of losses due to hail were lodged with the association in 1917 measured 665,299 acres. Inspection showed that on 304,016 acres or nearly one third of this area a loss of less than 5 per cent. had been incurred and no indemnity was therefore due.

UNITED STATES.

INSURANCE AGAINST HAIL, IN MONTANA. — Session Laws of the Fifteenth Legislative Assembly of Montana, Chapter 169.

An Act passed on 14 March 1917 has organized insurance against hail in Montana.

In the first place a State Board of Hail Insurance is created. It consists of the State Auditor and *ex officio* Commissioner of Insurance, the

(1) See our issues for May, August and November 1917, and January and May 1918.

Commissioner of Agriculture and Publicity who is secretary of the Board, and three other members appointed by the governor from names submitted by the duly organized farmers' societies having a membership throughout the State. This Board prepares a special form on which the purposes, scope and benefits of insurance against hail at the actual cost of the risk, as placed by this Act within the reach of all taxpayers, are explained in outline. Copies of this form are submitted by the County Assessor, when he makes the regular assessments of property, to each farmer in each county in the State who grows crops subject to injury by hail. Each farmer taxpayer indicates on the form he receives whether or not he wishes to become subject to the provisions of the Act. If such be his desire he fills in the form and files it in the office of the County Assessor no later than 1 June, and thus he becomes liable to pay the tax on lands growing crops subject to injury or destruction by hail. This tax may not exceed 60 cents an acre on lands sown with grain crops or 25 cents an acre on lands sown with hay.

The County Treasurer in each county in the State keeps all monies he collects for hail insurance in a separate fund called the Hail Insurance Fund, which he remits to the State Treasurer no later than 31 December of the year in which the monies are collected. The State Treasurer places all the monies he receives under this Act to the credit of a fund called the State Hail Insurance Fund, whence he makes payments on warrants drawn by the State Auditor by order of the State Board of Hail Insurance. If such warrants be presented and there be no money in the fund to pay them, they are registered and thereafter bear interest at the rate of 4 per cent. per annum until called for payment by the State Treasurer.

The owners of lands worked by others under lease or contract choose as to whether or not these lands are subjected to taxation under this Act. The lessee may, if the landowner do not thus subject them, pay the tax for insurance against hail in cash, whereupon his crops receive the protection afforded by the Act.

All losses by hail to crops insured under this Act are reported immediately by the owner of the crops, his agent or attorney, to the State Board of Hail Insurance, which requires the claimant to make a sworn statement as to the losses he has sustained, their causes and other points of interest, on especially provided forms.

The Board of County Commissioners of each county in which a tax for insurance against hail is levied appoints two appraisers, nominating them from a list submitted by the duly organized farmers' societies. These two appraisers, together with a third chosen and appointed by the State Board of Hail Insurance, appraise all losses by hail in the county and report their findings to the State Board of Hail Insurance, which examines and verifies the reports and fixes the amount of losses.

- When a loss by hail to crops insured under this Act has been sustained and its amount determined, the State Board of Hail Insurance certifies the fact and arranges for compensation. For this object it ascertains as early in each year as is practicable the acreage under hay and grain and

subject to this Act on which the tax for insurance against hail has been levied. It thus discovers the total amount of such tax levied ; and it deducts thence 10 per cent. to allow for omissions of payments and costs of administration and appraisal, and then apportions the balance of the amount levied *pro rata* among all taxpayers subject to the Act who have incurred loss by hail, their losses having been estimated in the manner already described. The Board orders the State Auditor to issue warrants on the State Hail Insurance Fund as payment for such losses ; but such payment may not exceed \$12 per acre in the case of grain and \$5 per acre in the case of hay crops.

Any taxpayer or association of taxpayers growing crops not specified in this Act, or other agricultural or horticultural products subject to injury by hail, may agree to accept the provisions of this Act and become subject thereto. The Board may then classify his risks and levy suitable payments from him, whereupon he acquires a right to the benefits and protection of insurance under the Act.

Part III: Credit

ARGENTINE REPUBLIC.

RURAL PROPERTY AND THE MOVEMENT OF SALES AND MORTGAGES.

OFFICIAL SOURCE :

ESTADÍSTICA AGRÍCOLA 1915-1916, Ministerio de Agricultura de la República Argentina.
Buenos Ayres, Talleres gráficos del Ministerio de Agricultura de la Nación, 1917

§ 1. POPULATION, RAILWAYS, AND AGRICULTURE.

Whoever wishes to get an idea of the importance acquired by agriculture in Argentina, and of that which it is still susceptible of attaining, should take into consideration a few simple data which give a bird's eye view of forty years of obvious development.

This country has an area of 298,735,300 hectares. The population rose from 2,231,049 in 1872, to 3,158,434 in 1888, to 3,954,911 in 1895, and to 8,288,779 in 1915. The cultivated area still only amounted to 24,361,980 hectares in 1915, but it must be noted that the figure for 1895 was 4,892,004 hectares, 2,459,120 hectares in 1888, and 580,008 hectares in 1872. We thus see that the agricultural activity of the country has grown at a very rapid rate. And as the Argentine Ministry of Agriculture publishes side by side with the data for the cultivated area those for the development of railways, we can but follow this timely comparison which shows that the opening up of means of communication keeps pace with the development of cultivation. There also the figures speak clearly : in 1872 there were 864 kilometres of railroad ; in 1888 the figures rose to 7,645 kms., to 14,462 in 1895, and to 34,782 kms. in 1915. In both cases the progress made is striking, and when one reflects on the vast possibilities which still exist there one can but foresee that their realization will be sure and rapid.

If it were not outside of the scope of this study we could show on the basis of official figures, that each crop taken singly has progressed in this wise. Viewed from the standpoint of rural property the following facts deserve attention : during the crop year 1915-1916 6,465,000 hectares were under wheat, 1,597,000 hectares under flax, 1,009,000 hectares under oats,

and 3,697,850 hectares under maize. These four crops were grown on 12,768,850 hectares, or 15.45 % of the total area of the country, and nearly 50 % of the cultivated area.

§ 2. MODE OF OCCUPATION OF THE LAND AND AREA OF FARMS.

As to the economic conditions under which cereals are raised the Ministry of Agriculture only supplies data on the area harvested, amounting to 8,280,809 hectares, including wheat, flax, oats, barley, and millet crops. This accounts for one third of the cultivated area. For this area under the staple crops information is available showing how it is divided between farms worked under the direction of their owners and those worked by renters or *métayers*. These data refer to 76,955 farms, worked by 23,546 owners, 43,968 renters, and 9,441 *métayers*, being respectively 30.60 %, 57.73 % and 12.27 % of the total. These percentages are those which hold good for the country as a whole, but there are regions in which they vary greatly. The variations may be shown by maximum and minimum figures. For instance the class of landowning farmers includes 20.90 % in the section north of the province of Buenos Ayres, and 36.38 % in the province of Entre Ríos; renters vary from 38.56 % in the section north of the province of Buenos Ayres to 65 % in the Central Pampas; and the *métayer* class goes from 6.97 % in the southern and central section (group 1) of the Province of Buenos Ayres to 40.54 % in the northern section of that province.

These figures refer to farms raising the staple crops mentioned which were harvested in 1914-1915. The 76,955 farms which come under this head are classified according to area as follows: 4,648 of less than 10 hectares; 14,364 from 10 to 25 hectares; 14,695 from 20 to 50 hectares; 16,160 from 51 to 100 hectares; 16,651 from 101 to 200 hectares; 6,324 from 201 to 300 hectares; 3,612 from 301 to 650 hectares; 355 from 651 to 1000 hectares; 146 of over 1000 hectares. We thus see that in 1914-1915 farms of from 10 to 200 hectares were by far the most numerous, representing in round figures 80 % of the total number of farms under consideration. These statistics also show that, as a whole, in 1914-15, there were 11,844 more farms in this group than in 1910-1911. But closer examination will show that the maximum was attained in 1912-1913 with 84,076 farms. Thus, when compared to that year, later figures show a tendency to decline, though since then the number of such farms has been slightly on the increase. Thus from 76,212 to which it had fallen in 1913-13, it increased for the year under consideration by 743 units. This decline from the higher number attained in 1912-1913 holds good only for the provinces of Buenos Ayres and Entre Ríos. In the latter the number of these farms rose from 7,968 in 1910-1911 to 12,420 in 1912-1913, since when it has steadily declined, falling to 11,335 in 1914-1915. In the province of Buenos Ayres the 29,116 farms existing in 1910-11 rose to 33,350 in 1912-1913, and then declined progressively to 25,828 in 1914-1915, showing a diminution of 3,288 in a period of four

years. This phenomenon is explained if one consults the classification of the areas under farm belonging to this group during the preceeding years (1). One then sees that in this province the number of farms the area of which did not exceed 650 hectares declined from 1912-1913 to 1914-1915, while those of 651 to 1,000 hectares increased. The tendency is therefore towards large estates. But as we shall see the province of Buenos Ayres is somewhat of an exception in this respect. As to the nature of the occupancy it would seem that the category of renters is the one which is most on the increase.

But before examining the question of the sale of rural property it is interesting to consult complete statistics which take into consideration all such property existing in the country. The commendable initiative in this direction taken by the Ministry of Agriculture in 1915-16 enables us to a great extent to do so. We find in this publication 1) a table showing the division of rural property in the provinces of Buenos Ayres, Córdoba, and Santa Fe for 1914 with data for 1911 as a term of comparison, and dealing with eleven categories of rural property according to area; 2) a table showing the rural property in the province of Entre Ríos in 1915 grouped according to the same classification, with the more important data for 1905; 3) a table showing rural property in the province of Mendoza in 1914 with the situation in 1911, and in this case the figures for properties of from 10 to 25 hectares are preceded by those for properties of from 1 to 4 hectares, and from 5 to 9 hectares. As will be seen, these are groups of which the already considerable importance has gone on increasing, rising from 32 % to 45 % of the total. Each of these tables contains a column of percentage ratios indicating the variations in plus or minus which have occurred for the several groups of properties from 1911 to 1914, or from 1905 to 1915 according to provinces. A glance at these five statements which we reproduce in two tables shows that the conclusions we came to concerning the farm lands under staple crops still hold good when applied to the whole of the landed property of the agriculturally most important section of the country. If other data were needed to confirm this opinion it would suffice to borrow the following from the statistics which we are considering: of the 76,955 farms under staple crops in 1914-1915, 73,585 were in the four provinces of Buenos Ayres, Córdoba, Santa Fé, and Entre Ríos, distributed respectively as follows: 25,828 — 21,844 — 14,578 — 11,335.

(1) See under the title of the work indicated as the "official source", the years 1913-14, and 1914-15 of the same periodical publication, Buenos Ayres, 1914 and 1916, which we constantly make use of

TABLE 1. — *Division of rural property in the provinces of Buenos-Air, Córdoba, Santa Fé, in 1911 and in 1914, and of Entre Rios in 1905 and 1915*

Division of property	Province of Buenos-Aires				Province of Córdoba				Province of Santa Fé				Province of Entre-Rios			
	No. of properties		Difference		No. of properties		Difference		No. of properties		Difference		No. of properties		Difference	
	1914	1911	%		1914	1911	%		1914	1911	%		1915	1905	%	
From 10 to 25 hectares	17,464	14,001	+ 24.7		8,025	5,671	+ 41.5		7,803	6,876	+ 13.5		3,559	—	—	
From 26 to 50 "	15,016	14,191	+ 5.8		7,580	5,045	+ 50.2		7,592	6,830	+ 11.2		3,971	4,765	— 16.7	
" 51 " 100 "	10,117	9,248	+ 9.4		7,556	5,280	+ 43.1		7,918	7,276	+ 8.8		3,913	2,727	+ 43.5	
" 101 " 200 "	7,483	7,466	+ 0.2		7,493	5,732	+ 30.7		8,121	7,875	+ 3.1		3,032	2,122	+ 42.8	
" 201 " 300 "	3,167	3,850	— 17.7		3,239	2,658	+ 23.4		3,144	3,020	+ 4.1		1,362	—	—	
" 301 " 650 "	5,267	4,940	+ 6.6		3,987	3,870	+ 3.0		2,397	2,545	— 5.8		1,687	From 201 to 800	1,906	— 19.9
" 651 " 1250 "	3,297	3,256	+ 1.3		1,760	1,685	+ 4.5		1,202	1,263	— 4.8		807	From 801 to 1250	1,310	
" 1251 " 2500 "	2,382	2,530	— 5.8		975	992	— 1.7		773	768	+ 0.6		637	605	+ 5.3	
" 2501 " 5000 "	1,627	1,649	— 1.3		524	619	— 15.3		561	566	— 0.9		281	301	— 6.6	
" 5001 " 10,000 "	857	682	+ 25.7		221	268	— 17.5		198	205	— 3.4		119	From 2005 to 10,000	197	— 3.5
Over 10,000 "	368	306	+ 20.3		122	147	— 17.0		132	136	— 2.9		71	—	—	
Totals	67,045	62,119	+ 7.9		41,482	31,967	+ 29.8		39,841	37,360	+ 6.6		19,439	13,987	—	

TABLE II. — *Division of rural property in the province of Mendoza, in 1911 and in 1914.*

		Division of property in		No. of properties		Difference — %
from	to			1914	1911	
		4	hectares	6,722	5,093	+ 32.0
»	5	9	»	3,229	2,224	+ 45.2
»	10	25	»	3,339	2,198	+ 51.9
»	26	50	»	1,407	938	+ 50.0
»	51	100	»	1,061	632	+ 67.9
»	101	200	»	680	453	+ 50.1
»	201	300	»	279	168	+ 66.1
»	301	650	»	363	309	+ 17.5
»	651	1,250	»	202	158	27.8
»	1251	2,500	»	154	162	— 4.9
»	2501	5,000	»	113	115	— 1.7
»	5001	10,000	» (1)	80	50	+ 60.0
	over 10,000		» (2)	238	137	+ 73.7
Totals . . .				17,867	12,647	+ 41.3

§ 3. SALE OF RURAL PROPERTIES.

The data given in the preceeding paragraph show at least the intensity of the movement taking place in rural property in Argentina. New holdings are being formed either by taking over new lands from the national domain, or by dividing up or reuniting lands already under cultivation. All this entails a constant ebb and flow of contracts which it is interesting to note, both as showing new purchases from the national domain and as showing the degree of the instability of the rural population, more especially as the upshot of it all is an increase in the leading crops and in the agricultural wealth of the country. As the data given by the Ministry of Agriculture indicate the area of lands sold and their value year by year and for five-year periods, one can see the fluctuations, if any.

During the decade 1906-1915, 85,781,932 hectares of land were sold for 2,741,060,335 pesos of national money, *i. e.* at an average price of 32 pesos per hectare. These figures refer to two five-year periods with an area of 47,884,030 hectares sold for 1,222,316,912 pesos, *i. e.* at an average of 25 pesos per hectare, for the period from 1906 to 1910, and 37,897,902 hectares sold for 1,518,734,423 pesos, or 40 pesos per hectare, for the period from

(1) and (2). The increase in the number of properties extending over more than 5,000 hectares is a result of the sale of State lands and the subdivision of private properties conveyed in lots of an area not less than 5,000 hectares.

1911 to 1915. Thus the area sold seems to have fallen on an average by 2 million hectares a year, while the price per hectare has increased from one period to the other by 15 pesos. We shall see how this fluctuation is made up, by utilizing the data referring to the two points under discussion from 1906 to 1915. This series will be rendered yet more striking by adding thereto the data for the two previous years, 1904 and 1905.

TABLE III. — *Area and value of lands sold from 1904 to 1915.*

Year	Area — hectares	Total value — pesos m/n (1)	Value per hectare — pesos m/n
1904	11,038,299	142,916,896	12.95
1905	16,290,947	232,623,453	14.27
1906	10,794,875	205,650,306	19.05
1907	7,527,935	117,336,976	15.58
1908	7,286,899	215,794,135	29.61
1909	8,572,387	264,510,900	30.85
1910	13,701,934	359,024,595	26.19
1911	11,149,253	396,837,383	35.59
1912	8,559,248	372,295,585	43.49
1913	6,636,237	298,932,633	45.04
1914	5,672,510	232,756,195	41.03
1915	5,880,654	217,921,627	37.02

These data are too clear to need comment. They show for each year considered the situation of the sale of lands for the whole country. We went back twelve years in order to show the evolution which has given rise to the situation of 1915. This situation, to which we pay most attention, requires analysis for, as is known, the differences from province to province in Argentina are very great. We therefore give the detailed figures for 1915 for each province and territory. We shall thus also see the actual value of the farm lands in the different parts of the country.

Thus, the average price of lands sold in 1915, which is 37.02 pesos, acquires its due significance when we see that in certain districts the price is only 1.9 peso, and in others 133 pesos per hectare. The intermediate prices show that in the provinces or territories of Neuquén, La Rioja, Chubut, Jujuy, Santiago del Estero, Santa Cruz, Tierra del Fuego, Río Negro, Formosa, Chaco, Misiones, Mendoza, San Juan the price of land is notably below the average value of cultivated land for the whole country. In the territories or provinces of San Luis, Central Pampas and Salta, the price of land comes much nearer to this average, whereas in the provinces of Corrientes, Tucumán, Entre Ríos, Córdoba, Santa Fé, and Buenos Ayres prices are much higher than the average, being in fact double and often quadruple.

(1) National money.

TABLE IV. — *Area and price of lands sold in 1915 by provinces and territories.*

Provinces and territories	Number of estates sold	Area of lands sold hectares	Average area of estates sold hectares	Total value pesos m/n	Average value per estate sold pesos m/n	Value per hectare pesos m/n
Buenos Ayres . .	2,158	524,279	242	70,015,007	32,444	133
Santa Fé	1,622	596,779	367	46,719,125	28,803	78
Córdoba	2,191	43 ,796	198	32,189,246	14,691	73
Entre Ríos . . .	670	92,253	137	6,477,505	9,667	71
Corrientes	7	2,036	291	87,331	12,476	42
Tucumán	566	44,556	78	2,123,938	3,751	47
Mendoza	948	918,308	968	18,800,342	19,831	20
San Juan	120	54,640	788	2,012,398	16,769	21
San Luis	498	172,758	346	4,667,693	9,372	27
Santiago del Estero	266	476,940	1,703	3,333,722	12,532	6.9
La Rioja	36	74,930	2,081	343,673	9,529	4.5
Salta	30	101,571	3,385	3,298,462	109,948	32
Jujuy	15	40,091	2,672	221,150	14,743	5.5
Catamarca	187	271,955	1,400	534,493	2,858	1.9
Central Pampas .	594	402,267	677	12,602,723	21,216	31
Río Negro	128	242,092	1,891	2,887,077	22,555	11.9
Neuquén	56	132,749	2,370	481,151	5,597	3.6
Chaco	76	88,191	1,160	1,762,139	23,186	19
Misiones	17	11,018	701	226,578	13,328	19
Formosa	10	2,373	237	36,481	3,648	15
Chubut	151	311,016	2,108	1,716,423	11,367	5.1
Santa Cruz	55	632,912	11,508	5,550,135	100,911	8.7
Tierra del Fuego .	17	189,309	11,135	1,835,135	107,919	9.7
Andes	—	—	—	—	—	—
Totals	10,418	5,880,654	564	217,921,627*	20,916	37.02

We will also take into account, as advised by the statistics prepared by the Ministry of Agriculture, another factor in estimating the sales of rural estates, classifying them according to area, and giving as a term of comparison the data on this head for 1914.

TABLE V. — *Number of farms sold, according to area.*

Class of farm			Number of farms		Total area hectares	
			1915	1914	1915	1914
From	1 to	25 hectares	4,160	4,371	40,286	41,164
"	26 to	50 "	1,389	1,519	52,685	58,348
"	51 to	100 "	1,392	1,307	107,895	100,924
"	101 to	150 "	634	616	78,390	76,691
"	151 to	200 "	503	473	90,444	84,521
"	201 to	250 "	291	244	65,090	54,234
"	251 to	300 "	250	200	68,307	55,409
"	301 to	400 "	272	274	94,508	96,579
"	401 to	500 "	179	158	81,852	72,054
"	501 to	1000 "	464	360	321,260	250,178
"	over	1000 "	884	806	4,879,867	4,782,408
Totals . . .			10,418	10,328	5,880,654	5,672,510

We thus see that in 1915 90 more farms were sold than in 1914. This is an increase of no great import as in 1913 the number of farms sold was 10,488; but it should be noted that the number was only 9,873 in 1912. The total area was 8,559,248 hectares in 1912, 6,636,237 hectares in 1913, 5,672,510 hectares in 1914, and 5,880,654 hectares in 1915. At first sight it would seem that the average area of lands sold had considerably declined, and this is confirmed by calculations, for we see that this average area was 876 hectares in 1912, 632 hectares in 1913, 549 hectares in 1914, and 564 hectares in 1915. The fact is that, on the whole, most of the farms sold are of smaller or average size, and the number of farms of more than 1,000 hectares sold since 1912 has been on the decline; in 1912 the number of such sold was 1196. The three last categories have declined since that year by 343 units, while the number of units in the other categories has increased by 888.

But we should not be justified in concluding from this that a fundamental change is taking place. The number of persons who own land is certainly growing; but it is none the less true that the number of very large estates is still so considerable that in 1915 they accounted for a large portion of the cultivated area since those which changed hands during that year represented over 20 per cent.

If we classify these estates according to their value we obtain a table of notable economic interest. The data we can give present considerable variety and include a scale of fourteen ascending values.

TABLE VI. — Sales in 1915 of rural properties classified according to value.

Class of property according to value				Number of estates		Value pesos m/n	
				1915	1914	1915	1914
less than		1,000 pesos		1,722	1,542	816,469	717,111
from	1,001 to	2,000	»	1,549	1,523	2,294,610	2,243,589
»	2,001	»	5,000	»	2,036	2,205	7,262,739
»	5,001	»	10,000	»	1,671	1,785	12,645,611
»	10,001	»	20,000	»	1,510	1,388	22,468,246
»	20,001	»	30,000	»	710	645	17,890,966
»	30,001	»	40,000	»	417	380	14,877,969
»	40,001	»	50,000	»	226	206	10,328,617
»	50,001	»	100,000	»	431	460	30,826,146
»	100,001	»	150,000	»	127	128	15,899,854
»	150,001	»	200,000	»	75	82	13,365,870
»	200,001	»	500,000	»	121	133	37,439,443
»	500,001	»	1,000,000	»	34	31	22,847,476
over		1,000,000	»	8	14	8,957,611	21,644,223
Totals . . .				10,637	10,524	217,921,627	232,756,195

In this classification of estates according to value, as in the classification according to area, we give as a term of comparison the data for 1914. As to the figures for the number of estates sold both in 1915 and in 1914 it will be noted that they do not fully correspond with those for the classification according to area. Obviously this is only apparent in comparing the totals. We have : total number of estates sold in 1915 classified according to area 10,418 ; total number of estates sold in 1915, classified according to their value, 10,637 ; total in 1914 according to area, 10,328 ; total in 1914 according to value, 10,524. There is no mistake in this. The study of the official statistics for 1913-14 shows that it may happen that a certain number of estates do not appear in the statistics on area and appear in the statistics on value. The aspect under which the phenomenon of the sale of rural properties presents itself is not modified thereby ; the statistics of estates classified according to value only add to the accuracy of the others. The increase in the total number of estates sold in 1914 as compared with 1915 is seen to be 113 instead of 90 as was shown by the estates classified according to area. Even if this variation of 23 units referred to the category of big estates, it would not alter the fact that the total area of lands sold in 1915 still exceeds that sold in

1914. Now the total value of these estates in 1915 is at least 14 million pesos less than in 1914. Therefore it was the less valuable estates for which, as a rule, the demand was highest. Indeed, we see that in 1915 estates valued up to 2,000 pesos exceeded by 206 the number for 1914. On the other hand the number of estates valued from 2001 to 10,000 pesos declined by 283. Then, the four categories including estates 10,001 to 50,000 pesos increased by 334. Finally, properties belonging to the other categories, valued at from 50,001 to over one million pesos, have declined as follows: from 50,001 to 100,000 pesos, 29 less; from 100,001 to 150,000 pesos, one less; from 150,001 to 200,000 pesos, seven less; from 200,001 to 500,000 pesos, twelve less; and over one million pesos, six less.

The category from 500,001 to 1,000,000 pesos is the only exception to this decline as 34 such estates were sold in 1915 against 31 in 1914. If we go back to the statistics for 1912 we can see this tendency delineate itself clearly. In 1914 sales were effected of 1,542 estates valued at less than 1,000 pesos, against 1,401 in 1913; of 1,523 estates valued at from 1,001 pesos to 2,000 pesos against 1,450 in 1913; of 2,205 estates valued at from 2,001 to 5,000 pesos against 2,193 in 1913; of 1,785 estates valued at from 5,001 to 10,000 pesos against 1,769 in 1913. On the other hand, in the same year, 1,388 sales were registered of estates valued at from 10,001 to 20,000 pesos, instead of 1,529 in 1913; of 645 estates valued at from 20,001 to 30,000 pesos instead of 726 in 1913; of 206 estates valued at from 40,001 to 50,000 pesos instead of 258 in 1913; of 460 estates valued at from 50,001 to 100,000 pesos instead of 545 in 1913; of 128 estates valued at from 100,001 to 150,000 pesos instead of 184 in 1913; of 82 estates valued at from 150,001 to 200,000 pesos instead of 102 in 1913; of 133 estates valued at from 200,001 to 500,000 pesos instead of 142 in 1913; of 31 estates valued at from 500,001 to one million pesos instead of 49 in 1913; and of 14 estates valued at over one million pesos instead of 23 in 1913. On all estates of a value exceeding 10,001 pesos the number of sales in 1914 shows a decrease as compared to the figures for 1913. The only exception to this rule is for estates belonging to the group valued at from 30,001 to 40,000 pesos, of which 380 were sold in 1914 as compared to 376 in 1913. The categories which showed a decline in the number of sales in 1913 as compared to 1912 were those embracing estates valued at from 30,001 to over one million pesos.

It is thus clear that during the four-year period 1912-1915 there has been an ever growing demand for the less costly estates.

These remarks are in conformity with the conclusions on this head to which statistics point. At least, it seems to us that the Ministry of Agriculture of Argentina wished to synthesise these tendencies by attributing special importance to rural properties sold of less than 300 hectares, and to those valued at less than 5,000 pesos. We reproduce these data in two tables, preserving the division by provinces and territories, which is of importance more especially in the case of a matter of detail such as this is; and which, moreover, only confirms the deductions we had already drawn from more generalised data.

TABLE VII. — *Sales of rural properties of less than 300 hectares in 1915.*

Provinces and territories	Number of properties	Area hectares
Buenos Ayres	1,811	107,185
Santa Fé.	1,385	119,129
Córdoba	1,904	119,483
Entre Ríos.	598	36,194
Corrientes	4	200
Tucumán	543	6,834
Mendoza	859	15,963
San Juan	106	4,522
San Luis.	419	30,231
Santiago del Estero.	133	10,700
La Rioja.	19	2,647
Salta	14	1,359
Jujuy	11	365
Catamarca	135	4,302
Central Pampas.	427	29,446
Río Negro	105	5,797
Neuquén	26	223
Chaco	44	3,014
Misiones	16	918
Formosa	9	1,373
Chubut	51	3,282
Santa Cruz.	—	—
Tierra del Fuego	—	—
Totals	8,619	503,167

If we go back from 1915 to 1912 we find the following for the sales of rural properties of less than 300 hectares: Number of properties in 1914, 8,729; in 1913, 8,860; and in 1912, 7,737. Area of properties 471,083 hectares in 1914; 497,693 hectares in 1913; and 448,279 hectares in 1912. If we take the average of the area of this group of lands sold during the four years under consideration we find: average area, 57 hectares in 1912, 56 hectares in 1913, 53 hectares in 1914, and 58 hectares in 1915. This slight fluctuation, after which conditions return pretty nearly to what they were at the start, shows that we are considering a really well selected group of much significance, which allows of conclusions which complete what we said in paragraph I of this study on properties of from 10 to 200 hectares.

TABLE VIII. — *Sales of rural properties valued at less than 5000 pesos m/n in 1915.*

Provinces and territories	Number of properties	Value pesos m/n
Buenos Ayres	688	2,016,968
Santa Fé	411	1,217,758
Córdoba	1,316	1,223,138
Entre Ríos	386	863,548
Corrientes	3	1,945
Tucumán	515	584,780
Mendoza	471	1,017,930
San Juan	58	136,756
San Luis	383	425,631
Santiago del Estero . . .	163	271,993
La Rioja	21	49,290
Salta	166	222,319
Jujuy	35	52,150
Catamarca	169	172,163
Central Pampas	283	621,746
Río Negro	49	105,684
Neuquén	35	58,555
Chaco	42	92,049
Misiones	10	21,280
Formosa	6	7,408
Chubut	77	210,702
Santa Cruz	—	—
Tierra del Fuego	—	—
Totals . . .	5,307	10,372,818

The data for the number of rural properties valued at less than 5,000 pesos m/n sold during the four years which have served us as terms of comparison are : 5,287 properties in 1914 ; 5,244 in 1913 ; 4,051 in 1912 ; their total value amounted to 10,711,308 pesos in 1914 ; 10,532,723 pesos in 1913 ; and 8,843,606 pesos in 1912. That gives an average of 2,183 pesos per holding in 1912, of 2,088 pesos in 1913, of 2,026 pesos in 1914 and of 1,954 pesos in 1915. As the value per hectare had increased that necessarily implies a reduction in the average area of the holdings sold. We are thus brought by a different reasoning to the same conclusion as before.

§ 4. MORTGAGE ENCUMBRANCES ON RURAL PROPERTY IN 1915.

Another side of the conditions of rural property remains to be considered, as we should obtain but an incomplete idea if we neglected the data on rural mortgages. In this field we will again follow the method of the Ministry of Agriculture of Argentina and the data supplied us by its statistics. Thus we will note first of all the mortgages placed on rural holdings during the ten years from 1906 to 1915, and then see what portion of this total belongs to each of the five-year periods 1906-1910 and 1911-1915. As a term of comparison we will note that the mortgages for the ten years 1904-1913 were placed on 73,936,661 hectares for a value of 1,826,829,913 pesos m/n, figures arrived at as follows: five year period 1904-1908, area mortgaged 34,443,192 hectares for 534,353,497 pesos m/n; five year period 1909-1913, area mortgaged 39,493,469 hectares for 1,292,476,416 pesos m/n. The mortgages for the ten year period 1905-1914 were on 76,291,893 hectares for 2,034,900,587 pesos m/n, or: five year period 1905-1909, area mortgaged 34,356,708 hectares for 634,644,623 pesos m/n; five year period 1910-1914, area mortgaged 41,935,185 hectares for 1,400,255,964 pesos m/n. The mortgages for the ten year period 1906-1915 were against an area of 75,373,152 hectares for 2,086,388,631 pesos m/n, i. e.: five year period 1906-1910, area mortgaged 34,368,281 hectares, for 751,974,633 pesos m/n; five year period 1911-1915, area mortgaged 41,004,871 hectares for 1,334,413,998 pesos m/n.

The following table shows the figures for each year.

TABLE IX. — *Mortgage encumbrances on rural properties from 1904 to 1905.*

Year	Area mortgaged hectares	Value pesos m/n
1904	6,252,277	57,742,148
1905	7,039,327	77,810,140
1906	6,229,550	107,605,363
1907	7,546,982	131,643,255
1908	7,466,397	136,772,362
1909	5,665,791	158,416,336
1910	7,559,561	218,751,415
1911	8,919,658	281,137,532
1912	10,515,712	348,573,331
1913	7,832,635	275,958,857
1914	8,107,519	275,831,812
1915	5,529,357	142,902,445

We give below a table for 1915 showing the mortgages classified according to area and compared to the three previous years, 1912, 1913, 1914. This is of special interest as 1912 seems to mark a maximum after which the area mortgaged and the sums paid decline progressively until 1915. It should be noted that 1912-1913 was the year with the largest number of farms under staple crops, which are those most suited for raising mortgage loans, as they afford better security than do lands put to other uses.

TABLE X. -- *Rural mortgages classified according to area from 1912 to 1915.*

Class of Farm	Number of Farms				Area in hectares			
	1912	1913	1914	1915	1912	1913	1914	1915
From 1 to 25 hectares	1,296	1,355	1,559	1,106	14,346	15,651	17,540	12,372
" 26 to 50 "	655	668	607	533	24,919	25,411	26,984	20,266
" 51 to 100 "	728	841	878	568	57,886	65,558	66,563	44,120
" 101 to 150 "	386	427	474	304	47,732	52,502	57,623	38,046
" 151 to 200 "	389	342	348	301	70,224	60,787	66,633	53,292
" 201 to 250 "	231	218	225	166	52,161	48,434	50,102	37,487
" 251 to 300 "	181	171	207	147	49,228	47,436	57,201	40,704
" 301 to 400 "	311	305	321	185	110,348	107,560	111,492	64,099
" 401 to 500 "	191	214	210	145	86,226	96,974	94,884	65,216
" 501 to 1000 "	586	513	486	365	423,846	364,693	346,281	261,443
Over 1001 "	1,578	989	1,129	709	9,578,796	5,947,629	7,175,864	4,892,432
Totals . . .	6,532	6,043	6,559	4,531	10,515,712	6,832,635	8,071,030	5,529,357

The greatest number of mortgages were taken out against holdings of from 1 to 25 hectares, yet, as is natural, this is the class which gives the smallest mortgaged area. In the case of this category both these data increased continuously from 1912 to 1914, but in 1915 they fell below the figures for 1912. This holds good for all categories of farms up to an area of 150 hectares, except for those of from 26 to 50 hectares, of which the number in 1914 fell below that for 1912, although the area mortgaged was larger than at this latter date. The data for farms of from 151 to 250 hectares fall and rise alternately from one year to another but in such wise that the figures for 1915 are distinctly lower than those for 1912. The same fluctuations occur for mortgaged farms of from 251 to 400 hectares, but the highest figures are those for 1914. Mortgaged farms of from 401 to 500 hectares

are most numerous and show the largest area in 1913, after which year the figures decline until in 1915 they were below the level attained in 1912. The figures for farms of from 501 to 1000 hectares reached their maximum in 1912 and declined steadily until 1915. Those for mortgaged farms of over 1001 hectares have fluctuated up and down as in the case of other categories but always tending to a decline both in number and area. This leads us to note that the number of farms mortgaged has declined nearly 30 per cent., and the area mortgaged nearly 50 per cent. Thus the number of small farms mortgaged is increasing, while those on farms of more than 300 hectares are declining. We should not forget that during this period the percentage of small farms in the country as a whole has been growing, so much so that it was logical to foresee the general conclusions to be drawn from the returns for the sales of farms and the mortgages which encumber them.

TABLE XI. — *Rural mortgages classified according to value of Farms from 1912 to 1915.*

Farms classified by value		N.º of loans				Value in pesos m/n			
		1912	1913	1914	1915	1912	1913	1914	1915
Less than	1,000 pesos	149	92	120	134	103,247	57,296	72,417	78,891
From 1,001 to	2,000 "	437	532	708	619	717,591	826,607	1,113,016	963,620
"	2,001 to 5,000 "	998	1,200	1,425	1,076	3,845,446	4,524,040	5,313,254	3,968,686
"	5,001 to 10,000 "	1,139	1,243	1,313	919	9,024,834	9,914,413	10,306,533	7,290,862
"	10,001 to 20,000 "	1,148	1,039	1,100	753	17,847,720	16,138,232	17,025,278	11,334,920
"	20,001 to 30,000 "	630	503	508	288	15,928,311	13,197,618	13,201,521	7,390,823
"	30,001 to 40,000 "	393	271	268	159	14,155,585	9,838,634	9,760,267	5,751,733
"	40,001 to 50,000 "	307	246	267	130	14,429,956	11,570,516	12,542,853	6,080,043
"	50,001 to 100,000 "	705	512	489	263	53,441,221	37,844,166	37,016,342	19,940,981
"	100,001 to 150,000 "	250	188	178	93	31,544,809	23,779,900	22,279,128	11,656,920
"	150,001 to 200,000 "	146	102	105	71	26,175,035	28,428,367	18,569,936	12,210,118
"	200,001 to 500,000 "	267	182	171	98	81,172,711	57,255,140	51,612,632	31,792,324
"	500,001 to 1,000,000 "	51	36	45	20	36,025,326	25,297,790	32,847,054	14,936,827
Over	1,000,000 "	24	17	20	6	44,161,549	57,286,048	44,157,951	9,485,671
Totals		6,632	6,163	6,717	4,629	348,573,331	285,958,857	275,831,822	142,902,445

The study of rural mortgages according to the value of the farms shows the same phenomenon under a different form. The totals given above are somewhat higher than those in the previous table. This difference may be due to returns drawn up on a somewhat different method, or to the fact that some sections do not transmit their data to the registrar, but forward them subsequently to some other service, which utilizes them. As these differences from one year to another are inconsiderable, and keep within limits which are constant, the results cannot be considered to be invalidated by an error which falsifies the aspect of things.

From 1912 to 1915 there was a falling off in the number of mortgages on all classes of farms except those valued at from 1,001 to 5,000 pesos. Even if we lump together farms of less than 1,000 pesos, of from 1,001 to 2,000 pesos, and of from 2,001 to 5,000 pesos, it will be seen that this group of farm mortgages included 245 units more in 1915 than in 1912. All the farms of from 5,001 to 1 million pesos and more encumbered by mortgages were in 1913 2,248 fewer than in 1912. And the number of mortgages declines as the value of the estates considered increases. A comparison of tables XI and XII clearly shows that the relation between the area and price of small farms is not absolute in the case of general data for so vast a country, in which the value of land from one region to another may vary by from 1.9 pesos to 133 pesos, as is shown by Table IV. This undoubtedly explains why in the matter of mortgage encumbrances: 1) the number of farms of relatively small area has declined, while the number of farms of relatively small value has increased; 2) the number of estates of high value has declined more than that of estates covering a large area.

This, however, does not in the least detract from the importance, both for sales and mortgages, of farms of less than 300 hectares, and of those encumbered with mortgages for less than 5,000 pesos.

Tables XII and XIII show in this respect the special conditions of the several provinces.

TABLE XII. — *Mortgage encumbrances on farms of less than 300 hectares.*

Provinces and territories	Number of farms			Area — in hectares		
	1913	1914	1915	1913	1914	1915
Buenos Ayres . .	1,785	1,432	920	137,026	113,842	75,198
Santa Fé	354	355	408	33,292	32,464	38,320
Córdoba	476	812	628	51,161	79,035	61,163
Entre Ríos . . .	415	507	249	39,902	51,491	23,730
Corrientes	5	1	1	641	210	19
Tucumán	105	110	88	5,153	3,623	3,116
Mendoza	559	798	477	20,527	31,788	15,470
San Juan	105	102	87	4,898	4,137	5,590
San Luis	32	71	28	3,522	3,201	2,486
Santiago del Es- tero	—	32	55	—	1,966	4,849
La Rioja	—	10	1	—	336	13
Salta	6	10	3	877	1,172	37
Jujuy	7	13	3	596	914	430
Catamarca . . .	16	11	9	387	177	227
Central Pampas .	107	107	96	10,830	10,353	11,388
Río Negro . . .	58	41	30	5,856	3,484	2,188
Neuquén	2	2	24	24	341	293
Chaco	8	5	13	987	247	1,402
Misiones	—	—	3	—	—	239
Formosa	—	—	1	—	—	240
Chubut	1	2	3	100	150	159
Santa Cruz . . .	—	—	—	—	—	—
Tierra del Fuego	—	—	—	—	—	—
Totals	4,022	4,421	3,126	315,779	338,931	246,197
Total 1912 . . .	3,866	Total 1912	316,496			

TABLE XIII. — *Mortgage encumbrances on farms for amounts smaller than 5000 pesos m/n*

Provinces and territories	Number of farms			Amount — pesos m/n		
	1913	1914	1915	1913	1914	1915
Buenos Ayres . .	718	625	472	2,220,661	1,846,529	1,435,772
Santa Fé	132	127	179	455,936	423,228	588,641
Córdoba	185	445	367	625,464	2,298,501	1,026,565
Entre Ríos . . .	287	357	197	757,095	970,509	485,957
Corrientes	3	2	1	9,000	7,808	1,300
Tucumán	72	72	65	165,918	169,672	116,711
Mendoza	205	302	240	530,666	876,935	627,135
San Juan	49	60	56	130,483	158,818	163,744
San Luis	35	56	25	94,328	153,868	59,861
Santiago del Estero	—	38	26	—	99,983	84,314
La Rioja	—	4	1	—	10,200	3,000
Salta	39	58	45	99,625	56,264	99,750
Jujuy	14	17	17	37,509	47,848	31,132
Catamarca . . .	12	13	12	35,094	39,863	25,429
Central Pampas .	52	55	58	168,424	154,578	153,374
Río Negro	10	14	14	40,140	56,000	38,377
Neuquén	2	1	24	3,600	3,113	18,069
Chaco	5	5	13	19,500	16,200	35,145
Misiones	—	—	2	—	5,000	5,000
Formosa	—	—	1	—	—	5,000
Chubut	4	2	4	17,500	8,500	6,921
Santa Cruz . .	—	—	—	—	—	—
Tierra del Fuego	—	—	—	—	—	—
Totals . . .	1,824	2,253	1,829	5,410,943	7,498,417	5,011,197
Total 1912 . . .	1,584	Total 1912	4,671,847			

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES.

UNITED STATES.

1. THE CREDIT TRANSACTIONS OF THE FEDERAL FARM BANKS. — *The Economic World*, New York, 3 August 1918.

A statement published by the Federal Farm Loan Board shows that there was last June a marked reduction in the applications to Farm Banks for loans: those received from the whole country numbered only 1,196 and were for a total sum of \$5,127,011. The loans approved in the same month numbered 2,516 and amounted to \$6,793,527.

From the date on which the Federal Farm Banks first became active in May 1917 until 1 July 1918 they granted and paid 48,297 loans amounting to \$109,517,308. This sum was distributed as follows among the twelve banks:

Federal Farm Bank of	Amount lent
—	\$
Spokane	17,000,555
St. Paul	16,205,000
Omaha	13,264,140
Wichita	12,292,700
Houghton	9,807,741
New Orleans.	7,646,540
Louisville	6,704,106
Berkeley	6,698,400
St. Louis	7,172,172
Columbia	4,746,513
Baltimore	4,140,500
Springfield.	3,851,595
Total	\$ 109,517,308

* * *

2. THE LIFE INSURANCE COMPANIES AND RURAL MORTGAGES. — *The American Underwriter*, Vol. XLIX, No. 6, June 1918.

More than a year ago the Metropolitan Life Insurance Company made its first loan secured by a rural mortgage, almost at the moment at which the system of federal farm loans was initiated.

In a report on this subject the company's vice-president, Mr. Robert Lynn Cox, states that there are still a fair number of rural first mortgages which offer to the funds of insurance companies an investment at a satisfactory rate of interest. In the year just past several factors have however contributed to a lessening of the volume of mortgage business done. In the first place the extraordinary prosperity of American farmers, consequent on the high price of wheat, cotton, maize and pigs, has obliged certain firms which had large investments in agricultural real estate, and especially life insurance companies which have done business of this kind for many years, to receive the repayments of their creditors as rapidly as is consistent with the realization of a profit, by suffering the extinction of mortgages.

In the space of twelve months the Metropolitan Life Insurance Company has invested \$ 7,584,405 in rural mortgages.

URUGUAY.

1. A NEW LAW AS TO THE CONSTITUTION OF AGRICULTURAL PLEDGES. — *Diario oficial*, No. 3650, Montevideo, 25 March 1918.

The Senate and the Chamber of Representatives of the Republic of Uruguay have passed an Act determining the form which a contract constituting an agricultural pledge, and able to have effect on implements used for tillage, may take.

This Act is exceptionally important for it supplies an absolute necessity of Uruguayan agriculture. Cultivators of the soil and stockfarmers have long awaited it, for it gives them an easy instrument of credit wherewith to develop agricultural production in Uruguay, a country in which it would be impossible to find the smallest fraction of land so poor that its value could not be realized.

The constitution of the agricultural pledge will have a notable influence on stockbreeders and keepers; and will thus be of profit to public economy, since stockfarming is one of the country's chief sources of wealth. In this connection we need only recal the fact that the live stock of Uruguay annually represents a capital of some forty million pesos.

The new expedient for obtaining rural credit thus opens up to Uruguay fresh roads to agricultural production and to the conquest of uncultivated land, and gives the means to recoup themselves without additional expense for bad years, and to keep clear of the speculations of engrossers, to producers, small capitalists and lessees who have not much capital beyond the product of their labour and the elements which constitute and render possible that labour.

The measure in question was one of such urgent necessity that the Bank of the Republic had long been obliged to grant agricultural credit within certain limits to arable and stockfarmers, especially such of them as owned no real estate on which loans to them could be secured and were therefore obliged to obtain money from the various institutions of credit

already in the Republic. Only the institution of agricultural pledges could facilitate the quest of farmers for capital and at the same time facilitate the circulation in the market of large capital otherwise idle and valueless.

The projected law as to agricultural pledges was long and fully discussed, from 1916 onwards, by the Uruguayan parliament. The points most debated were the determination of the persons and bodies who might borrow by means of agricultural pledges having this especial form, and the organization of public offices which would give the widest publicity to certificates and other deeds arising out of the new credit transactions.

The law in question has reconciled two opposing tendencies evinced when the legitimate use of agricultural pledges was discussed: one party would have extended their use, while another would rather have restricted it lest a general authorization to individuals to make use of these pledges should injure unguaranteed personal credit. It has indeed been observed that if real estate be mortgaged and chattels be liable to be pledged, creditors having no guarantees may find themselves at any time at a disadvantage because the principle of law that a debtor's property constitutes the common security of all his creditors may thus be falsified. Hence it is necessary to limit pledging.

Having premised these considerations we will proceed to examine the terms of the new law.

A contract constituting an agricultural pledge and able to take effect on farming implements may concern only: 1) live stock and its derivatives; 2) chattels used on farms; 3) products of all kinds and qualities produced in the farming year in which the contract is drafted, whether growing crops, timber, minerals or the products of national industry; 4) agricultural machines and implements; 5) implements used for industrial or manual labour. Pledges of this last sort may be constituted only in order to secure the payment of the value of the implements in question to the person selling them.

Only the Bank of the Republic and the other institutions of credit of the same kind, commercial establishment keeping their books regularly and the rural funds will be able to undertake lending business of this kind.

The interest on the sums advanced may not surpass 8 per cent. per annum and may be capitalized only by the year. Dealers selling the goods or articles specified will be allowed to take advantage of this system of pledging to cover the sum a purchaser still owes them on the price of his purchase.

Pledged goods will guarantee to the creditor the amount of his loan, interest on it and any costs which may arise.

In order to pledge real estate used by the owner of the property of which it is part, when there are mortgages on this property, the consent of the mortgagee is necessary.

The rights of the creditor to whom the pledge forms a security end two years after the pledge has been constituted unless it be renewed before the lapse of this period, so long as the right established in this matter by Article 1232 and the following articles of the Civil Code be not impugned.

The privilege of this same creditor extends to the damages paid on the pledged article because it is insured or by persons through whom it suffers depreciation. For as long as the contract constituting the pledge remains in force, the creditor may inspect the pledge and exact information as to its condition from the creditor from time to time. He may determine the form which the sale of live stock, fruit or other crops constituting part of the value of a pledge may take, and the times most profitable for these sales. The law stipulates that the price of pledged goods shall in all cases be used to discharge part of the debt which the pledge secures.

With respect to the debtor, the law establishes that he remains owner of the pledged agricultural property, and also of the implements which are held in the creditor's name. His obligations and civil liability will be regulated by Clause 13 of the second part of Book VI of the Civil Code.

It is at present forbidden to make a contract for the constitution of an agricultural pledge which affects property already thus pledged, unless when contracts already made are modified in agreement with the creditor. No new contract may be made without the consent of the latter. The debtor may sell pledged crops and products derived from live stock in the most favourable season, but these goods must not pass to the purchaser until the sum due for them has been paid to the creditor, unless the latter consent to a different procedure in which case the fact must be noted on the back of the certificate of pledge.

The debtor pledging agricultural property may emancipate it at any time by paying to the bank nearest the place where it is situated, and to the account of the legal bearer of the certificate of pledge, the amount of the pledge and the accessory obligations adhering to it. He must also present the certificate of deposit for registration at the registry.

The entry cancelling the constitution of the pledge must be made by the person to whom such office belongs. The creditor must be duly notified of an impending cancellation at the address mentioned in the contract, and will have ten days in which he is able to oppose the cancellation.

The penalty incurred by a debtor who abandons the property forming an agricultural pledge, thus depreciating the rights of the creditor, is imprisonment for from two months to two years without prejudice to the liabilities imposed by common law on a depositary in cases of this kind, or to the incidence of the rights constituted in the pledge. If a debtor dispose of pledged property as though it were not pledged, or if he pledge goods belonging to others as though they were his, or pledge his own pledged goods as though they were unpledged, he becomes liable to two years' imprisonment if the loss he inflicts do not exceed 10,000 pesos, and otherwise to from two to six years' imprisonment.

Special provisions of the law regard the formalities to be observed in drawing up a contract of pledge.

This contract must depend on a deed in writing, and will have effect as between the contracting parties and with respect to others only from the day on which it is entered in the registries of the department in which the pledged object is situated.

Counter-signatures referring to contracts of this kind have no effect, even as between the contracting parties.

At Montevideo a contract of pledge will be made at the Registry; in the country special registers for contracts of this kind will be kept by the registrars of the departmental law courts and other public officials.

The register is public. The fee for an entry is one peso whatever be the value of the loan guaranteed. The certificate is despatched gratis on paper bearing a 25 centesimos stamp.

The pledge does not impugn a landowner's rights as regards an expired years's lease, as regards produce or other goods constituting a customary rent, or as regards the usufruct of the pledged article, so long as the relevant lease or contract have been entered in the appropriate register before the contract of pledge. When once the entry has been verified the person responsible for registration will, at the request of either contracting party, draw up a certificate which shall include the names of the contractors, the amount of the loan and the date at which it falls due, the conditions on which it is granted, the nature and quantity of the pledged goods, their situation, the date of the entry, the name of the person to whom the certificate is despatched, and all other details which the legal regulations may require.

When live stock or the products of live stock are in question, the species, age, sex, mark and distinctive signs of the animal, or the quality weight and number of the products, must be noted in the certificate.

The fees to be paid for this certificate may not exceed 1 ½ pesos.

The cancellation of an entry may be obtained by a debtor at any time if he present the certificate of entry drawn up in favour of the creditor, endorsed with the latter's receipt. This certificate will be kept in the archives, and the cancellation will be noted in the margin opposite to the entry.

The registrar of pledges must, within twenty-four hours of the production of the deeds constituting or extinguishing pledges, communicate with the local office which issues the certificates in order that the latter may note these deeds, and refrain on occasion, on pain of incurring the legal penalties, from issuing policies on or certificates conveying live stock or crops constituting unredemmed pledges.

Whoever buys property on the evidence of instruments showing it to be unburdened by pledges, shall be exempt from all liability and protected from all creditors' claims.

The office responsible for issuing certificates or policies must draw up, on demand and at the expense of the person interested, the certificate already mentioned which will be evidence of an entry in the registry.

When once live stock and the derivatives of stockfarming and cultivation have been pledged, they may not be removed from the farm on which they were when they were pledged unless the registrar testify to the fact that they have been removed and notify such fact to the creditor, the endorser and the person charged to execute the instrument. The violation of this clause, which must be inserted in the attestation, constitutes a fraud

or delinquency, as the case may be, and may draw down on the violator the penalties established by this law.

If enjoyment of the benefits of registration be desired with regard to property belonging to several farms in different districts, an entry must be made in the registry of pledges of each of these districts.

The entry which, as we have said, preserves the character of pledge for two years, expires automatically at the end of such period without prejudice to judicial actions in course. The entry may be cancelled at any moment at the debtor's request, if he present the certificate of pledge drawn up in the creditor's favour and endorsed by the last holder, this certificate having been entered in the archives at the competent office, and having on it a note of the fact that it has been cancelled.

The certificate of agricultural pledge is transferable by endorsement. It must bear the date of the endorsement and the name, address and signature of the endorser and the endorsee.

All persons endorsing a certificate of agricultural pledge become collectively liable. The endorsee must cause the endorsement to be registered in the registry of pledges.

The certificate of agricultural pledge constitutes an executive title making effective the privilege on the pledge and, on occasion, on the amount of the insurance, and rendering the debtor and the endorser liable for the payment of the loan, interest and costs. A creditor must sue for payment before the magistrate at the commercial court or before the magistrate at the place fixed for payment. Failing the latter he may sue where he likes, or before the magistrate of the place of the debtor's domicile or of the place where the pledged goods are situated.

All the provisions of the Civil Code which may go counter to this law are abrogated.

This law, published after a long period of expectancy, has been received with much satisfaction in all rural centres in Uruguay, for it will procure great advantages for agriculture. It will solve one of the most important of economic problems. It will profit especially the small landowners to whom henceforth the road will lie open to the credit they need in order to farm their lands more scientifically and more intensively.

2. THE DISTRIBUTION OF SEED TO AGRICULTURISTS. — *Anuario estadístico de la República oriental del Uruguay*, Year 1915, Book XXV. Montevideo, Tipografía Moderna de Francisco Arduino, 1917.

The data published by the official commission for the distribution of seeds show the quantity of seeds distributed by this body from 1911 to 1914. Data of two kinds have been thought sufficient to indicate the results obtained in these four years, namely the quantity of wheat seed distributed, and the value of all the distributed seed which also included seed potatoes and maize, oats, lucerne grass and bean seed. The commission

distributed 116,340 kilogrammes of wheat seed in 1911, 126,707 kilogrammes in 1912, 459,000 kilogrammes in 1913 and 411,961 kilogrammes in 1914. Thus except for a certain reduction between 1913 and 1914 the quantities distributed much increased, being more than tripled in four years. The value of all the seed distributed was 5,292.75 pesos in 1911, 5,068.28 pesos in 1912, 23,580.45 pesos in 1913 and 31,284.15 pesos in 1914. We need only note that this total value has almost been multiplied by five in the period considered in order to realize that the quantities of seed other than wheat distributed in these four years must also have increased.

In 1915 this department suddenly assumed a larger development, the quantity of wheat distributed rising to 1,185,162 kilogrammes, or being nearly triple that distributed in 1914 and nearly ten times as large as that distributed in 1911. Its value was 89,384.85 pesos. The figures as to this year's distribution are so important that they are more detailed. We find that 58,560 kilogrammes of seed potatoes were distributed, 8,836 kilogrammes of maize seed, 1,000 kilogrammes of oats seed, 30 kilogrammes of seed of lucerne grass, and 300 kilogrammes of bean seed. The total value of the seed distributed in this year was 95,329.62 pesos, including 5,944.77 pesos for seed other than wheat seed.

The data for 1915 clearly connect these distributions with agricultural credit. It is stated that 1,644 farmers received seed from the commission, and that 442 paid for it in cash, while 336 received it on credit repayable to the bank at fixed terms and 609 on credit similarly repayable to the commission.

Part IV: Agricultural Economy in General

FRANCE.

THE PLACING AND THE IMMIGRATION OF AGRICULTURAL LABOUR.

SOURCE:

OFFICE NATIONAL DE LA MAIN-D'ŒUVRE AGRICOLE: Placement et immigration de la main-d'œuvre agricole. (*National Office of Agricultural Labour: Placing and Immigration of Agricultural Labour*), PARIS 1918.

We have already dealt more than once with the National Office of Agricultural Labour and its activity (1) which is deployed chiefly through the medium of the departmental offices in the interior of the country and the immigration offices in the frontier departments.

The National Office has just published the results of its work until the end of 1917 and we can therefore give more details as to this twofold organization.

We would recall that since 1917 the National Office has been annexed to the Department of Agricultural Labour at the Ministry of Agriculture of which we spoke in October 1917.

§ 1. THE WORKING OF THE DEPARTMENTAL OFFICES OF AGRICULTURAL LABOUR.

Before we begin our examination of the constitution and working of the departmental labour bureaux we must guard against a confusion which might easily arise. These bureaux are quite distinct from the so-called departmental commissions of agricultural labour, for while it is the object of the latter to distribute State labour the bureaux are exclusively concerned with civil labour, whether French or foreign.

Object. — It is the object of a departmental bureau :

1) To place the unemployed of either sex who make application to it. With this aim it collects farmers' offers of employment and labourers'

(1) See our issues for July 1915 (*Monthly Bulletin of Agricultural Intelligence*) and February and November 1916.

demands, helps them to come to an understanding with each other, and if necessary allows the actual hiring to take place on its premises.

2) To place discharged and partially disabled soldiers who are fitted for agricultural work, and to co-ordinate the activity of the schools of re-education and the associations which are concerned within the department with labourers of this class:

3) To place tenant farmers, *metayers*, stewards and foremen.

4) To seek out seasonal labour in the departments in which the demand for it is about to end. All the departmental bureaux maintain relations with the National Office of Agricultural Labour. A circulation of labour among departments, in order to bring into late districts labourers set free from early districts, may thus be brought about.

5) To appeal for foreign labour and to maintain constant relations with the stations and bureaux of immigration set up along the frontiers by the National Office.

6) To disseminate among employers advice as to the manner of treating immigrants according to their nationality — Portuguese, Spanish, Italian or other — supplying knowledge as to their customs and preferences in the matter of food, lodging and otherwise, and explaining all legal and administrative formalities connected with their employment.

7) To act as intermediary and representative in relation to public authorities where the application of laws and rules and their amendment are concerned.

Constitution. — In virtue of the law of 14 March 1904, the free employment bureaux created by the trades syndicates, whether of workmen, or employers or mixed, and all other legally constituted associations are not subjected to the necessity of obtaining any authorization for their activities. They are however obliged to deposit a preliminary declaration made at the mayoralty of the commune in which they are established. This declaration must be renewed every time the bureau changes its address. Every legally constituted association may take the initiative in creating a departmental bureau. The only condition which the National Office of Agricultural Labour imposes on the affiliation of a bureau is that it have truly originated with the principal agricultural associations in the department and that the departmental director of agriculture belong to it *ex officio*, thus preventing its management from having any partizan tendency.

In order to facilitate the inauguration of the departmental bureaux and help their working, the National Office supplies them with information as to the possibility of finding labour in the various districts. The office publishes a special paper, *La Main-d'Œuvre Agricole*, which is a collection of all documents relative to the labour employed in agriculture. It procures printed matter, schemes for hiring labour abroad, etc., and awards to the most deserving officials of the departmental bureaux the encouragement especially provided by the National Society for the Protection of Agricultural Labour.

Financial Resources. — The financial resources of a departmental bureau are the subsidies received from the agricultural societies, the General

Council, etc., such subscriptions of individuals as may be attracted, and the contributions of employers which are determined by varying rules.

The National Office of Agricultural Labour allots, moreover, to the departmental bureaux subsidies proportionate to the labour they place.

Finally, as the recruiting of foreign labour is often hindered by a fear on the part of employers that their costs for transport and various expenses will not be looked upon as complete losses and repaid to them, the National Office of Agricultural Labour places at the disposal of the departmental bureaux special advances which correspond to the expense of bringing the first contingents of immigrants to their place of employment. These advances are really short-term loans, bearing no interest, intended to make the movement attractive.

The departmental bureaux may, for their part, with a view to providing for future activity, exact from the farmers when these remit their demands for labourers a deposit of say 10 per cent. of anticipated costs, in addition to the amount of these costs. The fund made up of these deposits may form a reserve from which damages will, if necessary, be paid to employers suffering from breaches of contract for which they are not responsible.

Working. — For purposes of illustration we will examine the working of a bureau of average importance, that of the Hautes-Alpes at Gap. It is patronized by various agricultural societies in the department and its offices are in a building dependent on the Direction of Agricultural Services. An official receives in the bureau offers of and requests for employment, both oral and written. Every week he inserts demands which have not been satisfied in the local press and often in the district press. From time to time he notifies mayoralties as to current offers and requests. He keeps in touch with the supervising commissioners at the railway-stations of the department and at the frontier, and thus he can divert the supply of floating labour.

He sees that lists of refugees harboured in the department are communicated to him and endeavours to obtain employment for those of them who are workers on the land and all others of them who will undertake agricultural labour. He makes a census of men disabled in the war who enter the department, informs them as to re-educational establishments, and is responsible for placing such of them as go onto the land. In the holidays he places the labour of schoolchildren.

Several bureaux, in particular that of the agricultural syndicate of Vaucluse, have had cause for gratitude in the fact that the trade papers and the daily press have advertised their addresses and the nature of the services they render to labourers and employers.

Supplies of Labour Utilized. — As regards supplies of labour, that furnished by refugees and native agriculturists (foremen, *métayers* and stewards) is not very ample. It has however been impossible to keep statistics exactly. The placing of 1,622 persons has been recorded in the bureau of the Paris district. Statistics as to the schoolchildren's labour furnished by the departmental bureaux have also been kept inexactly. The bureau of the Basses-Alpes states however that by its instrumentality boys from Nice

and Marseilles and the school of agriculture at Antibes were usefully employed during the harvest.

The only general supply of labour seems to be that constituted by immigration.

The recruiting of foreign labour takes place either in Spain directly or in the immigration offices at the frontier. It is accomplished by delegates of the departmental bureaux indirectly. They deposit duly prepared hiring contracts in the frontier bureau x dependent on the National Office of Agricultural Labour, and these are presented by the agents of the bureaux to the labourers who are not already bound by signed contracts when they apply for the identification card which allows them to travel on French soil.

The bureau of Loir-et-Cher speaks as follows of the recruiting of labour by means of recruiting agents. "In order that this recruiting may have some certainty of success it must be accomplished by well known agents as to whom it has been possible to make the most precise enquiries on the spot. In the case of labourers, it is equally needful to ascertain the agricultural character of the province whence they emanate. Basques and natives of Navarre are born agriculturists. Even although they have often passed through a workshop or mine, because they could not get more remunerative employment, they still take an interest in fieldwork".

This last observation is corroborated by the bureau of Vienne which states that, "A considerable proportion of the men placed in agriculture are taken from the workmen who have been brought to Vienne by various factories and railway companies, and have, for various motives, left such employment. This labour has been used by the farmers for tillage of all kinds, and in winter for the felling and chopping of wood for fuel".

As to the relations between employers and immigrants, in spite of all the difficulties encountered — irascible employers, sick workmen, workmen who refuse to be separated — the bureau of Loir-et-Cher has found that 50 per cent. of the immigrants have made a very useful contribution to fieldwork and work in vineyards, and this constitutes a real success.

On the whole, taking into account all the vexations suffered, an observation made by several bureaux is notable. It is stated that recruiting gave better results in 1917 than in 1916, a proof that practical experience has already borne fruit.

One of the recognized methods for making a selection from the travelling labourers who offer themselves is, as the Agriculturists' Syndicate of Loir-et-Cher notes, to insist that they pay for their journeys themselves. If employers have not more frequently attained to their desiderata in the matter both of French and of foreign labour, it is, as the bureau of the Paris district remarks, because they nearly always turn to the bureaux as a last resort when they have already spent much time in making researches in their village and its neighbourhood, and have grown so impatient to find workmen without delay and at any cost, that they no longer practise selection. Moreover if wages have risen markedly in most districts, in others they are slow to reach a level proportionate to the cost of living. It is stated that

wages may be in one district double what they are in another similarly situated : 10 francs are paid in the one where 5 francs are paid in the other. This explains many preferences of the labourers. In Loir-et-Cher the farmers who did not hesitate to give in summer 120 francs a month with board and lodging were able to keep their new staff and made on the whole a fair bargain. But farmers who attempted still to pay only 75, 80 or even 90 francs generally saw their labourers leave them to go into the towns or the war factories.

We should also note, as the Paris bureau has done, another factor which appreciably influences the relations between employers and labourers, namely the custom some employers adopt of giving spirits to their labourers. Young men have thus acquired drinking habits and become disorderly and cruel to animals.

Bureaux of Agricultural and Other Labour. — The departmental bureaux of agricultural labour would have been yet more successful if all the Directors of Agricultural Services had well understood their procedure and the necessity for them. But many directors were gained by the expedient of creating offices for mixed labour which placed man in industry, trade and agriculture. In this way some lost sight of the usefulness of a special placing of agricultural labour, and others actually allowed their own function to be absorbed in that of the agencies placing industrial labour. Sometimes the mixed offices have disregarded a departmental bureau of agricultural labour in their vicinity and have not hesitated to place the agricultural labour which ought to be the exclusive concern of the special agricultural agencies.

In other departments, notably in Eure-et-Loir, the agricultural syndicate was called upon to form a general departmental labour office. This was to invert the previous mistake, that of making persons outside a particular trade responsible for placing its labour when the market for labour in that trade was a matter of special knowledge. The agricultural syndicate in question wisely refused to concern itself with the placing of labourers in industry and trade, for which it was unqualified.

§ 2. THE ORGANIZATION OF THE IMMIGRATION OF FOREIGN LABOURERS DURING THE WAR.

Historical. — On 20 April 1915 the National Office of Agricultural Labour summoned to Toulouse the representatives of the chief agricultural societies and the Directors of Agricultural Services of the South-West, in order to examine expedients for organizing, in the best interests of the country generally, the Spanish immigration, which was well established in the southern provinces.

In time of peace foreigners have free access to French soil, being required only to make a declaration as to their place of residence. Since the outbreak of war care for the national security has engendered more regulation in this matter.

When hostilities began the authorities issued passports to persons wishing to come to France, who had afterwards to obtain a permission to reside bearing their photograph. A passport cost 20.60 francs, a large sum to a labourer and one which therefore checked immigration to a certain degree.

Later, in consequence of an agreement between the Ministries of the Interior, War and Foreign Affairs, a passport was not required. But Spanish workmen were allowed to enter France only at strictly determined points. There they received a special card, under supervision and with the *visa* of an official of the Ministry of the Interior, and this card took the place of the permission to reside. The name of the employer, the workman's civil status and the commune for which he was bound were indicated on it. He might not leave this commune, on pain of being expelled from the country, unless he obtained the mayor's authorization *visée* by the police.

Such was the position at the time of the Toulouse meeting.

After an interchange of views this meeting decided that it was necessary to make the National Office of Agricultural Labour responsible for ensuring the recruiting transport and distribution of foreign agricultural labour, and to avail itself of the services of the departmental committees and the recruiting agents.

This resolution entailed the following procedure. Departmental committees, either independent or annexed to agricultural associations, were to group the individual demands for labour reduced to the form of a model contract which would take local customs and the average wages in each department into account. When these demands had been brought together the departmental bureaux were to send them to the National Office of Agricultural Labour which would be responsible for organizing the convoys and obtaining simplifications of administration and reductions of fares.

The duty of the office's recruiting agents was to bring the immigrants to the chief town of the department in which they were to be employed, and to ensure that they were sent to the railway stations whence their respective employers would have to fetch them. There were complementary provisions to cover the costs of recruiting and transport.

A campaign was started on the basis of this scheme. At the instigation of the National Office of Agricultural Labour various departmental committees were constituted, and others formed a short time previously were connected with the office.

At the same time, in order to facilitate the entry of foreign workmen into France, the office undertook to instal immigration offices, especially on the Spanish frontier. Those at Cette, Cerbère, Fos and Hendaye were established as early as 1915.

The movement was accentuated in the succeeding years. In 1916 new bureaux were opened at Marseilles, Arreau-Tramezaignes and Bordeaux; in 1917 at St. Jean-Pied-de-Port, Bourg-Madame, Le Perthus, Port-Vendres, Arles-sur-Tech, l'Hospitalet, Bagnères-de-Luchon, Pierrefitte-Nestalas and Ossés.

In the beginning of this year, in February 1917, the office endeavoured at the request of M. Clementel, Minister of Agriculture, to organize an immi-

gration of Portuguese agricultural labourers, and with this object sent a delegate to Lisbon to study conditions thoroughly on the spot.

Any appreciable immigration by way of the Italian and Swiss frontiers could not be expected *a priori* before the cessation of hostilities. It was however necessary that foreigners arriving from Italy or Switzerland should not be exempt from the rules applicable to all immigrants. Bureaux were therefore set up at Mentone, Larche and Modane in 1916, at Bellegarde, Saint Julien, Annemasse, Evian, Annecy, Briançon and Fontan in 1917, and then at Gex, Frasnay, Pontarlier and Moirans. More than 3,000 foreigners entered by these routes.

Ministerial Instructions. — At first there was naturally tentative work before the new agencies could become fully active in France. But after some experiments the machinery was sufficiently stable to allow general instructions to be issued. The first rules were issued on 1 March 1916 by the Ministry of Agriculture. Until 1917 the bureaux were created locally and presented certain divergencies according to their situation. Experience showed what were the best arrangements, and last year it was possible to complete the organization of each station and bureau and recast the rules with a view to their unification.

The question of immigration was necessarily connected with that of the supervision of foreigners in France, and was particularly important to general security. The Ministry of the Interior could not disregard it. Therefore on 18 April 1917 this Ministry issued a report which was intended to regulate the recruiting and the circulation of foreign labour, and to conciliate the interests of labourers and of their employers with the exigencies of national defence. We have said that workmen were obliged to provide themselves with an identification card which was to them a safe-conduct within the limits of the district in which they were allowed to travel. There was a provision for a sanction for their return-journey and their journey in case employers refused to accept their responsibilities. Annexed to this report there was a very full decree which stipulated that every immigration station should have a department of identification, and if possible provision for medical examinations and the taking of photographs.

Following on this decree of 21 April, the Ministry of the Interior on 12 May addressed to the prefects of the frontier departments a note informing them that the Ministry of Agriculture had reorganized and completed the system previously adopted by the immigration bureaux and stations. Accordingly on 15 May 1917 a new set of general and more extended rules, signed by the Ministers of the Interior and of Agriculture, appeared. They are those now in force.

• Subsequently, a decree of 18 October 1917 simply entrusted the Ministry of Labour with the duty of centralizing all information relative to the demand for a supply of labour of all kinds, and of ensuring the distribution of the available labour among the public departments which were employers, save in the case of foreign labour intended for agriculture which remained within the competence of the Ministry of Agriculture.

Present Position. — The present position is as follows. On all the fron-

tiers — Spanish, Mediterranean, Italian and Swiss — there is in force a uniform system to which the immigration services conform in their work. Special commissioners of police are responsible for this work in virtue of resolutions passed by the Ministries of the Interior and of Agriculture.

The immigration services comprise the stations and bureaux organized by the National Office of Agricultural Labour and maintaining constant relations with this office. In the stations the special commissioners themselves supervise the work. There are bureaux if the inflow of immigrants is sufficient to necessitate the services of a special official, an agent being in such case nominated by the Office of Agricultural Labour in agreement with the commissioner. It is his duty to regulate, under the superintendence of the special commissioner, all matters of detail relating to immigration. His pay is fixed by the director of the Office of Agricultural Labour who gives instructions as to the direction of the various branches of the work.

In the first days of every month the agents and special commissioners send to the directing body in Paris a copy of their books and of the statistics regarding entries into the country for the past month.

On 31 December 1917 there were seven bureaux and nine stations on the Spanish frontier and 14 stations on the Italo-Swiss frontier. This organization is now almost complete, all roads of access to the frontiers being thus supervised. It enabled the registration of 28,288 persons — men, women and children — in 1915, of 98,423 in 1916 and of 107,652 in 1917, that is 234,363 in all up to 1 January 1918.

This figure obviously does not stand for the number of travellers who have really gone to increase the population of the country since 1915, for it counts more than once persons who return after a departure. But it is a certain indication of the stage of development which the organization has reached.

The Working of a Bureau of Immigration. — Every workman entering France must present papers to prove his civil status. They are examined by the commissioners, this formality having precedence over all others. When once the admission into the country of an immigrant has been authorized, he must supply himself with a special card allowing him to move about on French soil and taking the place of a French passport. At this point he enters into relations with the immigration services.

But before they deliver the cards the agents of the office must investigate the matters of 1) the photograph, 2) vaccination, and 3) hiring.

1) *The photograph.* — Photographs are affixed to the identification and travelling cards on the counterfoil kept by the commissioners, and also to the receipts sent to the mayors and commissioners in the interior. According to the rules they must be decipherable, taken full face and with uncovered head, the face measuring no less than two centimetres. For the case of immigrants possessing no photographs of this kind facilities by which they may obtain them through the immigration service and at a moderate cost are provided.

With this object the office has entered into agreements with the photo-

graphers in frontier places who in consequence supply the three necessary copies of the photograph for 1.50 francs. Where professional photographers have refused to come to such an agreement — one which gives them a sufficient profit — the immigration staff itself undertakes the photographing. In communes in which it is all but impossible to obtain the necessary paper, plates and other material orders are sent to the central office and forwarded thence to a Paris manufacturer who supplies them to the photographers directly.

2) *Vaccination*. — It is very necessary to pay attention to the state of immigrants' health. Examples show that immigrants who are in so infectious a condition as to be dangerous to any of the populated places to which many of them go arrive with some frequency. A first and elementary precaution is the vaccination of every immigrant. He must therefore prove by a medical certificate issued in France that he has been vaccinated within at most three years.

Many cannot prove that they have been effectively vaccinated and the immigration departments have therefore been obliged to undertake this operation. The important bureaux have had attached to them a doctor who makes daily examinations and vaccinations of arriving immigrants. In the less important bureaux and the stations agreements have been made with the local doctors who render the same services at fixed hours. An immigrant pays 50 centimes for all this medical attendance.

3) *Hiring*. — The identification and travelling card, which the immigrant workman must possess in order that he may move about, must bear the name and address of the employer to whom he is going. Exceptionally it may bear instead the name and address of a departmental bureau of agricultural labour which must affix all necessary *visas* to the card when the workman is definitely apportioned to it.

Cases vary according to whether 1) a workman arrives in possession of a contract emanating from the employer to whom he is going, 2) is brought by a recruiting agent, or 3) is travelling alone without a contract and without knowing who will employ him.

a) *Workmen having contracts*. — In the case of these there is no difficulty so long as the contract or hiring certificate bears the signature of the employer made legal by the mayor.

b) *Recruited workmen*. — The recruited workmen must present themselves at the immigration bureau together with the agent who has recruited them and who is obliged to submit the hiring certificates, bearing the employer's signature made legal by the mayor, to the representative of the Office of Agricultural Labour.

The bureau officials note whether or not these immigrants seem fit for the work for which they have been hired, referring the question if necessary to the special commissioners. They must also notify to these latter any enterprises for attracting or collecting immigrants of which they have knowledge. The Office of Agricultural Labour itself neither recognizes nor commissions any recruiting agent.

c) *Workmen without hiring contracts*. — When an agricultural labourer

arrives without a hiring contract the office proposes work to him. For this purpose offers of employment may be sent to the immigration bureaux, by the office's central department, by the departmental bureaux, by syndicates or by individuals. If the immigrant accept one of these offers he is hired by the bureau official after his fitness for the proposed work and his papers have been examined.

Sometimes individuals, syndicates or departmental committees prefer themselves to send a delegate to the frontier to make a choice among immigrants. In such case the terms offered by these delegates must be, like those offered to recruited immigrants, submitted to the agents of the Office of Agricultural Labour who will inspect them and prevent, as far as possible, the exploitation of foreigners.

No other hiring of agricultural labourers is tolerated at the frontier; that is to say that hirers and employers of labour may not treat with immigrants without the cognizance of the immigration bureau, and may not elude the formalities attaching to the entry of foreign workmen into France.

Terms of Contracts.— At first the contracts which farming landowners offered to immigrants were very brief. Frequently the employers would have had the men present themselves at the places of work, and would have reserved the right to hire or reject them at will. The office has improved this unregulated system by issuing a model contract in French and Spanish which not only makes provision as to wages and the kind of work to be executed but also lays down conditions regarding food and lodging, the duration of an engagement and the workman's journey.

Given the variety of the factors which affect agricultural labour, differing with districts, seasons, crops and methods of farming, it has not been possible, any more than in the case of French agricultural labourers, to make more precise rules, but all the contracts of the bureaux of the Office of Agricultural Labour are framed on the principle that foreign and French workmen should enjoy equality of treatment.

Cards.— When once the contracts, drafted by the special commissioner or the immigration officials, have been examined, and photographs and certificates of vaccination have been received, the labourers may receive their final cards. These are *visés* by the special commissioners, and remitted to the persons concerned in return for a fee of 50 centimes.

At first the office thought it could restrict its services to agricultural labourers. But several prefects petitioned the Director of General Security that the system of granting permit-cards to reside to tillers of the soil might be extended to cover the foreign workmen entering industry; and the Office of Agricultural Labour agreed, at the request of the Minister of the Interior, that a special card should be issued to workmen other than agricultural labourers. Thus, following on agreements between ministries, the office has become in some sort a general immigrating enterprise permanently supervised by the Ministry of the Interior.

Agricultural labourers, that is men employed on tillage and forestry and in agricultural industries, receive a buff card, the others a green card. All these cards are issued and supplied by the National Office of Agricultural Labour.

Premises. — Premises were needed in which to deliver the identification cards, and instal photographic studios and vaccination rooms. These have often been found on the premises of the commissioners ; but sometimes, especially where immigrants were arriving in their hundreds, it was necessary to find additional rooms near those of the commissioners. This was no easy matter in isolated places on the frontier, and in the chief stations, at Cette, Cerbère and Hendaye, it has been necessary specially to construct hutments for the medical department and the officials. By the kindness of the *Compagnie du Midi* these hutments have been set up inside the yards of the railway stations .

Board and Lodging. — It has also been necessary to provide lodging for the immigrants. Sometimes when the tide of immigration has flowed high there has been a painful spectacle, many immigrants in their anxiety to avoid expense sleeping on the floors of waiting-rooms or out-of-doors rather than hire rooms. To put an end to this state of affairs the Office of Agricultural Labour built a large sleeping-shed at Cerbère, and made at Perthus, Bourg-Madame, Arles-sur-Tech and Hendaye hiring arrangements which provide a free night's lodging for immigrants. •

On certain days however these shelters may prove insufficient. On the 28th of last June an agreement was therefore concluded with the Ministry of Armaments in virtue of which the special commissioners send industrial workers, and even, when it seems necessary, agricultural labourers who would crowd the frontier stations, to the dépôts for foreign workmen of the Ministry of Armaments in Bayonne, Perpignan and elsewhere.

As regards the payment for beds in inns, for meals in eating-houses and for photopharphy, the Office of Agricultural Labour has protected the foreign labourers from exploitation by unscrupulous profiteers. The special commissioners and the agents of the office have been asked to make out a table showing the addresses of inns which have agreed to receive immigrants and their prices and terms. The fees charged for the delivery of an identification card and for photography and vaccination are posted, in French and in Spanish or Italian, in a conspicuous place.

Transport. — There is an absolute rule that immigrants spend as short a time as possible on the frontier. They must be sent rapidly to their place of employment, travelling at their own expense. They must have means enough to pay for their journey, a stipulation which keeps out tramps. The transport of agricultural labourers has been much facilitated by an agreement with the railway companies which allows bearers of the buff card and of a hiring certificate made legal by the mayor of their employer's commune to travel for half fares.

Agricultural labourers may moreover travel for half fares after the expiry of their contracts when, in possession of a legalized hiring certificate, they remove from their first to a second employer, and when, in possession of a legalized certificate which shows that their work has ended, they return to the frontier.

The *Compagnie des Chemins de Fer du Midi* further grants reductions of 75 per cent. on fares to trainfuls of immigrants.

As regards transport by sea, several companies have granted important reductions of fares to immigrants entering the country by Cette.

Travelling within the country. — When once immigrants have passed the frontier they are free to move about within the country, that is to say from department to department and from commune to commune. All that is incumbent on them is to obtain the *visa* of their cards on arriving and on leaving.

When their work has ended they return to the country of their origin or hire themselves out to another employer. In the former case they must go to the frontier as soon as their card has been *visé* by the mayor, or they become liable for a breach of regulations. If they go to another employer they must, before quitting the commune in which they have resided, present to the mayor of this commune a new hiring certificate made legal by the mayor of the new employer's commune.

A married labourer sometimes comes to France alone and subsequently wishes to be joined by his wife and family. His employer may procure the satisfaction of this desire by sending a hiring certificate applying to the man's wife and his children over fourteen years of age.

Inspection. — In practice the procedure and the various formalities we have described are not followed with perfect regularity. Difficulties in applying the rules have to be solved as they arise. The special commissioners and the agents of the Office of Agricultural Labour at the frontier are in constant need of instructions, and the manner in which they interpret these must be watched. The office has caused some unexpected inspections of the various posts and bureaux. These are the more necessary because the special commissioners are often changed suddenly so that the outgoing man has not time to instruct his successor who has therefore everything to learn in the matter of immigration. Inspections were particularly frequent in 1917, in which year all branches of the service were reviewed in detail once or oftener, immediate resolutions being subsequently formed.

Such is, briefly, the work of the National Office of Agricultural Labour in the matter of immigration. We should add that it began its activity without asking the State for a credit, starting with a small fund made up of subsidies granted by some agricultural societies. The organization of immigration has never formed an item of the State budget but has always been self-supporting. All expenses — for salaries, gratuities, the building of sheds, material of every kind — are covered by the fees received in the bureaux which, we should notice, represent a great economy for each immigrant.

He pays only 50 centimes for his identification card, whereas he previously had to pay ten francs several times over for the various papers which gave him freedom of movement. Thus there has been a gain all round: the State and the foreign workmen have seen their contributions reduced almost to nothing, and not a single new official has been added to the administration.

UNION OF SOUTH AFRICA.

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§ 1. THE TITLE TO LAND.

In South Africa the principle has always been recognized that the State is directly interested in the stability of title to real estate. Were there no security of tenure the capital necessary to the development of the country, given, in especial, its agricultural and pastoral character, would be difficult to obtain saving at a rate of interest so high as to defeat the desired end. The title to land in the Union of South Africa depends on two elements — survey and registration.

A. Land Survey.

It is a principle that every deed granting or otherwise conveying landed property either has attached to it a plan of the property in question or refers back to a previous deed to which such plan is attached. This plan shows clearly the area and dimensions of the land and describes its situation and boundaries.

No plan is suffered to form part of a deed accepted for registration unless it be signed by a surveyor duly admitted to practise as such in the province of the Union in which the land in question lies, and unless it be approved by the surveyor-general of that province.

Before the surveyor-general approves a plan signed by a surveyor duly admitted to practise, he checks all the numerical data contained in the plan to see that they are mutually consistent with each other, and then compares them with the data on plans of adjacent holdings in order to guard against any encroachment on land already alienated.

When there was little or no supervision of the work of admitted land surveyors some of them traded on the fact that their surveys were unlikely to be checked for many years to come, and a certain number of plans were in consequence registered which did not by any means correctly represent the land granted or transferred. Later, when methods of land sur-

veying improved and the opportunities for checking the old surveys increased, the necessity of correcting the faulty plans was recognized. Laws were therefore promulgated, first in Cape Colony and later in the Transvaal and the Orange River Colony, which allowed a landowner who found that the original survey of his property had been made incorrectly to demand a new survey, and obtain an *amended title*, which included a correct plan, to his land. In Natal there has been no actual legislation on this subject, but there is a procedure for obtaining the rectification of an erroneous title very like that laid down by law in the other provinces. As regards the whole country it may safely be stated that, except in the sparsely populated districts where land is of comparatively small value, very few titles now exist which do not correctly describe the land to which they refer.

There is as yet no general law governing the *admission of land surveyors to practise* as such in the Union. Such a law, which shall engross the various laws, regulations and tariffs now in force, is however anticipated. In Transvaal and the Orange Free State the matter is at present regulated by provincial laws, in the former an ordinance of 1903 (No. 55) amended in 1904 (No. 8) and in the latter an ordinance of 1903 (No. 16); and in the Cape Province and Natal the necessary qualifications of the surveyors have been laid down by government proclamations in accordance with long established practice. The following essential qualifications are required in all the provinces :

- 1) A surveyor who is admitted to practise must be twenty-one years old ;
- 2) he must have passed the matriculation examination of the university or an equivalent examination ; and also
- 3) the first and second survey examinations of the University of the Cape of Good Hope ;
- 4) he must have served for at least two years in the field with a duly admitted surveyor ; and
- 5) he must have performed to the satisfaction of the surveyor-general a trial survey in which his practical knowledge of the methods of surveying, the use and adjustment of instruments, the making of plans and diagrams, and the land laws of the country has been tested.

A surveyor admitted to practise as such in any province of the Union may, in accordance with the provisions of the Land Surveyors' Recognition Act, 1917 (No. 25), obtain from the Secretary for Lands a certificate entitling him to practise in any one of the other provinces.

The subdivision of private property may not be effected except by surveyors admitted to practise in the province in which the property in question is situated. The cost of the surveys made for this purpose is a matter of arrangement between the owner and the surveyor concerned, but the Institute of Land Surveyors in each province has fixed a tariff which is usually observed when surveys of private property are made.

The following are data as to the areas in the various provinces which have from time to time been surveyed and alienated :

Province	Total area	Approximate area surveyed and alienated
	Sq. miles	Sq. miles
Cape of Good Hope	276,966	223,000
Natal	35,291	33,000
Transvaal	110,430	78,000
Orange Free State	50,389	50,389
Union . . .	473,076	384,389

In each province there is a *surveyor-general* who controls the surveying of all government land, and employs for this purpose duly admitted surveyors paid at a rate fixed by law or regulation. When land has once been alienated from the crown the surveyor-general has no concern with its later subdivisions, except that he must, as already stated, examine and approve the plans made when portions of it are transferred before the deeds of transference are accepted for registration.

In the Transvaal the government thus examines and approves plans of private property without making any charges, but in the other provinces certain fees, varying with the nature of the work, are imposed by law or regulation.

The following figures, which are approximate, refer to the number of plans examined by the surveyors-general in the several provinces between 31 May 1910, the date of the constitution of the Union, and 31 December 1916.

Cape Province	40,000
Transvaal	128,000
Orange Free State	15,000
Natal	10,000

The ordinary surveys which suffice to establish the title to a property are of little use for the compilation of comprehensive and accurate maps of South Africa. For this latter purpose the primary triangulation of the country was begun about 1859 and continued about 1883; and secondary triangulations of the Cape Province and Natal are in course. This work is now carried on at the government's expense, and as opportunity arises it serves to check the accuracy of the surveys of farms and other properties.

B. The Registration of Title Deeds.

In each of the four provinces of the Union there is provision for the registration of deeds conferring title to land. A Deeds Office Bill which would consolidate the law and practice of the several provinces in this matter has been before parliament for some time but has not yet become law.

Deeds Registries in the Cape of Good Hope. — There are four Deeds Registry Offices in the Cape Province, each of which is in charge of a registrar of deeds and has competence within a determined district.

To the office at King Williams Town belong the divisions of King William's Town, East London, Komgha, Stutter and portions of the divisions of Cathcart and Victoria East ;

To the office at Kimberley the divisions of Kimberley, Barkly West, Herbert and Hay ;

To the office at Vryburg the divisions of Vryburg, Mafeking, Gordonia, Kuruman and Taung ; and

To the office at Cape Town the remaining 102 divisions and districts,

No deed of transfer and no mortgage bond can be registered which has not been drawn up by a duly and legally authorized person and executed in the presence of the competent registrar. In the Cape Province advocates of the Supreme Court and conveyancers are so authorized. Other deeds are only registered if they have been executed in the presence of a notary public and attested by his signature.

The following are the principal functions of the several registrars of deeds :

- a) To register grants or leases of land by the crown.
- b) To examine, attest and register deeds transferring or hypothecating land.
- c) To register cessions, renunciations or waivers of mortgage bonds by the original holders.
- d) To effect registration necessary in connection with the cancelling of, or release from, mortgage bonds or part payments.
- e) To register antenuptial contracts, general or special notarial bonds, notarial deeds of servitude and of donation and other notarial deeds which the law requires to be registered.
- f) To register leases and cessions of leases of rights to gold, silver and platinum.
- g) To register usufructs of land.
- h) To register notarial deeds leasing land for ten years or more.
- i) To issue and register such certificates of title to land as may be prescribed by law.
- j) When so required by law, to satisfy themselves in connection with the registration of any deed that the duties, taxes, fees, dues and quitrent payable to the government or provincial administration, and any rents or charges payable to a local authority, have been paid.
- k) To exercise in general all powers and discharge all duties imposed on them by statute and common law.

In the history of the *Deeds Registry at Cape Town* the year 1903 stands out as that in which the greatest volume of business was transacted. In that year 18, 148 transfers, conveying land of the value of £12,924,658, and 9,362 mortgage bonds for £11,166,121 were registered, while 8,180 mortgage bonds, representing a capital of £5,548,501 were cancelled. This amount of business was abnormal and was doubtless due to the expenditure

by the Imperial Government of large sums in connection with the war against the late republics. Subsequently the figures representing the registry's business fell. In 1909, the year before the constitution of the Union, they were fairly normal. In that year 8,366 transfers, conveying land worth £3,253,242 and 4,860 mortgage bonds for £4,372,649 were registered, while 4,384 bonds for £3,298,036 were cancelled. Subsequently there was a slight improvement, and in 1913 the number of transfers registered had reached 10,522 and conveyed land worth £6,655,555, and the mortgage bonds registered numbered 6,256 and were for £6,392,174, while 6,067 bonds of the value of £3,950,616 were cancelled. In the two following years both numbers and values decreased to some extent.

We append comparative figures as to all the registrations effected in the six years preceding and the six years following on the constitution of the Union :

	Number of deeds registered			Value	
	1904-1909	1911-1916		1904-1909	1911-1916
	£	£		£	£
Deeds of transfer	61,983	54,723	Total value of property transferred	28,476,922	30,553,762
Mortgage bonds	34,953	32,192	Total value of bonds registered (real estate) .	31,090,047	30,450,719
Notarial bonds	2,324	1,786	Total value of bonds cancelled	18,797,107	20,996,874
Antenuptial marriage contracts	5,890	7,279	Nominal capital of companies registered . . .	9,639,017	8,045,223
Mortgage bonds cancelled.	28,507	31,137			
Cessions of bonds	4,437	4,775			
Servitudes	475	563			
Waivers of usufruct . . .	2	123			
Companies	457	419			
Sundry	11,810	13,589			

The differences in the corresponding figures for the two periods are in most cases not pronounced. An exception is the case of transfers of which some 7,000 more were registered in the earlier than in the later period. This is due to the abnormal number registered in 1904 as in 1903.

The demand for urban and suburban properties, and with it prices, fell very much owing to the depression which followed on the war against the late republics ; but a distinct increase in this demand has been noticeable recently. The demand for farm properties has on the other hand been consistent for many years and the prices of property of this description have advanced considerably. The development in the culture of fruit and lucerne grass, the improved stock breeding, the building up of an export trade, and the construction of irrigation works, extensive and other, have probably created this demand for agricultural land.

Deeds Registry in Natal. — The Deeds Registry Office in Natal owes its origin to an ordinance of 1846 (No. 2) which gave power to the governor of Natal to appoint a registrar of deeds, defined the duties of the registrar, and declared that a Deeds Registry Office in Natal should follow the practice of the Deeds Registry Office at Cape Town. An amending ordinance (No. 33) was passed in the same year. In 1875 a law (No. 16) regulated in detail the examination of certain deeds; and in 1885 an amending law (No. 19) provided for the promulgation of rules and dealt with the registration of leases.

In some minor respects the practice of the Natal Office differs from that of the office of Cape Town; for there was a difficulty in early days of obtaining information as to the latter office. The practice in Natal has moreover been affected by local legislation and by decisions of the Natal court.

Since the constitution of the Union certain functions have been withdrawn from the competence of the Natal Office. In 1911 the collection of the transfer duty and the issue of licenses to joint stock companies and conveyancers were undertaken by the Receiver of Revenue at Pietermaritzburg, and in 1913 the duty of registering wills was transferred to the office of the Master of the Supreme Court at Pietermaritzburg.

The following figures give an idea of the business of the Deeds Registry Office in Natal :

Import of deeds registered	1908	1909	1910	1912	1915	1916
	£	£	£	£	£	£
Value of property transferred :						
Farms	1,205,999	1,493,722	1,595,904	1,713,568	1,596,712	1,270,145
Urban property (1)	—	—	—	—	—	784,789
Bonds passed over real estate	799,648	1,188,255	1,134,214	1,180,865	1,014,713	1,216,018
" " chattels	353,666	599,469	638,927	361,052	408,442	328,762
" cancelled over real estate . .	—	—	—	—	913,565	950,346
" " chattels (2)	—	—	—	—	334,185	287,756

(1) Value recorded separately only for 1916.

(2) No record before 1915.

Deeds Registry in the Transvaal. — A Deeds Office for the South African Republic was established in Pretoria by ordinance (No. 3) in 1866. Previously deeds of transfer, bonds and documents of a like kind had been signed and registered by the *landdrosts* of the various districts but there had been no central registry. The ordinance of 1866 was amended by subsequent laws and regulations, all of which were repealed by a proclamation of 1902 (No. 10) which made new provisions as to the Deeds Office and registration of deeds. It was amended and amplified by ordinances

of 1903 (No. 65) and 1904 (No. 11) and by Acts of 1907 (No. 33), 1908 (No. 34) and 1909 (No. 25).

The Deeds Office is precluded from registering documents of certain descriptions. It did not acquire in 1902 the function of registering mining rights and stands. It did then acquire the right to register deeds referring to lots in leasehold townships, but in so far as the mining district of Johannesburg was concerned this right was transferred by another proclamation of 1902 (No. 35) to an office established at Johannesburg. By the Townships Amendment Act of 1908, which is still in force, freehold lots in townships within the mining districts of Johannesburg, Boksburg, Germiston and Krugersdorp became registrable either in the Deeds Office or in the Office of the Rand Townships Registrar, the latter official being identical with the Registrar of Mining Rights now known as the Registrar of Mining Titles. The two offices were ordered to inform each other as to transactions within the prescribed area and thus a system of dual registration was established. Mortgage bonds on the freehold lots within this area, which are passed before the Rand Townships Registrar and contain a general clause, have especially to be registered at the Deeds Office.

Various duties were imposed upon the Registrar of Deeds by the Irrigation Act, the Administration of Estates Act, the Land Bank Act, the Fencing and the Dipping Tank Acts and the Insolvency Act, and since 1904 he has been Registrar of Deeds for Swaziland.

Table A shows the number of deeds registered in the Deeds Office of the Transvaal from 1 June 1910 to 31 December 1916 and the value of the property these deeds affected.

Deeds Registry Office in Orange Free State. — The records of the Deeds Office of the Orange Free State go back to the early part of 1849, the period of the Orange River Sovereignty. The office was then established by the British Resident and was administered according to the law of the colony of the Cape of Good Hope. Shortly after the reinstitution of republican government the Deeds Office was first established by legislation, namely by an ordinance (No. 5) of 1886. This ordinance was subsequently modified. The Deeds Office is now mainly governed by an ordinance of 1902 (No. 33) as amended by ordinances of 1904 (Nos. 11 and 20) and 1906 (No. 3).

In 1892 the function of registering antenuptial contracts was assigned to the Deeds Office (Law No. 7); and in 1878 that of registering companies. The ordinance granting the latter function (No. 5) was amended by ordinances of 1883 (No. 9), 1904 (Nos. 11 and 20) and 1906 (No. 3). The registration of the liquidation of companies by the Deeds Office is governed by a law of 1892 (No. 2).

Table B shows the number of the deeds registered in the Deeds Office of the Orange Free State from 1911 to 1916, and the value of the property they concerned.

TABLE A.

Description of deeds	1911		1912		1913		1914		1915		1916	
	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £
Transfers and various certificates of title . . .	10,241	3,249,149	10,939	4,807,168	10,921	4,506,508	8,388	4,230,354	7,905	3,356,632	10,003	4,187,670
Deeds of grant	361	87,248	360	67,436	473	27,661	391	62,151	371	28,434	360	22,977
Bonds passed	5,578	14,832,500	6,150	10,059,845	6,482	4,078,231	5,114	9,298,677	4,953	4,436,845	6,211	3,558,190
Bonds cancelled and part payments	2,531	7,970,532	2,605	1,960,016	3,083	2,641,120	2,347	2,231,340	2,607	2,339,846	3,170	2,795,214
Contracts, leases, powers of attorney	2,222	—	2,265	—	2,118	—	2,203	—	2,094	—	2,188	—

TABLE B.

Description of deeds	1911		1912		1913		1914		1915		1916	
	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £	Number of deeds	Value of property £
Transfers, partitions, certificates of title . . .	4,366	2,368,285	4,370	2,497,506	4,827	3,169,620	3,500	2,305,169	3,095	1,876,124	4,410	2,672,533
Deeds of grant	200	—	154	—	844	—	146	—	93	—	120	—
Bonds passed	2,646	1,893,248	2,736	2,241,993	4,068	3,697,385	2,934	2,148,221	2,283	1,525,005	2,796	1,910,852
Bonds cancelled and part payments	2,728	1,066,832	2,095	1,920,277	2,854	1,890,380	2,004	1,447,045	1,581	976,218	2,443	1,473,515
Other deeds	985	—	1,990	—	2,076	—	1,810	—	1,782	—	2,183	—

§ 2. TENURE AND OCCUPATION OF LAND.

A. Crown Lands.

Before the constitution of the Union of South Africa each province administered its crown lands under certain statutory provisions. The Land Settlement Act of 1912 made uniform the practice of the four provinces with regard to acquisition, exchange and other disposal of crown lands. The provisions of this Act are described in detail in an article in our issue for April 1915 (1). An amending Act which has had effect since July 1917 has left intact the main enactments of the earlier law although it has modified certain of its details in accordance with the dictates of experience. Thus it allows not only that advances for the acquisition of stock may be made as provided in 1912 (2), but also that advances for the purchase of cattle may be made on the recommendation of the competent Land Board to lessees of lots within any area or settlement laid out for purposes of agriculture on town lands or commons by any local authority.

The Act provides that five years' leases may be granted on special terms to holders who have the option of buying their holdings either during the term of the lease or after its expiry, upon paying its fixed purchase-price in forty half-yearly instalments (3). From 1912 to 1916 leases of this description were granted as follows:

	1916	1912 to 1916
Number of lessees	210	571
" " holdings	141	407
Area " " 	416,631 acres	1,041,082 acres
Valuation of holdings	£110,053	£361,585

Another section of the Act (4) empowers the government to acquire a particular piece of land on behalf of an applicant who contributes one fifth of the purchase price immediately, becomes lessee of the holding, and repays the remaining four fifths of the price to the government in instalments spread over eighteen years. He also pays interest at the rate of 4 per cent. on such portion of the price as he has not repaid. The total price must not exceed approximately £1500. This section was suspended from the date of the outbreak of war, but in the parliamentary session of 1917 further funds were voted to enable the purchases it allows. The following table shows the transactions under this section from 1912 to 1916

(1) *Monthly Bulletin of Economic and Social Intelligence*, April 1915, pages 105-112.

(2) Ibid., p. 107.

(3) See the article already cited, p. 107.

(4) Ibid. pp. 107-8.

Province	Area acquired	Valuation	Number of holdings	Number of lessees
	Acres	£		
Cape of Good Hope	19,885	9,145	4	8
Natal	9,329	21,137	10	11
Transvaal	124,224	150,262	111	145
Orange Free State	43,812	74,348	37	40
Total . . .	197,250	254,892	162	204

Contributions by the government to purchase prices, together with costs of transfer and other incidental expenses, amounted to £203,772, and contributions by the assisted purchasers to £254,892. The total sum contributed was thus £254,892.

Yet another section of the Act provides for the purchase by the government of land for subdivision into farms to be allotted to the public. This section was put into operation to a limited extent in 1916 when 9,872 acres were acquired under its provisions for £15,262. Altogether some £184,600 were spent from 1912 to 31 March 1917 on buying land under the terms of this section.

Applications by letter may at any time be made to the Secretary for Lands at Pretoria for a portion of any unsurveyed and vacant crown lands. The area of such portion may be so small as to be fit only for a market-garden or it may be large enough to form a cattle ranche. From such applications the government learns in what district there is vacant crown land for which there is a demand. If it be considered advisable, a report on this land is obtained; and if the report be favourable the land is surveyed, divided into farms and valued. Lists of the farms available, and information as to how and on what terms they can be leased or acquired, are published from time to time in the local newspapers and the *Government Gazette*.

We will now notice certain agrarian legislation which has had force since the establishment of the Union and affects the tenure and occupation of land in particular provinces.

The Province of the Cape of Good Hope. — The principal law which regulates the disposal of crown lands in the Cape Province is an Act passed in 1887 (No. 15). In accordance with this, land is offered for sale by public auction, a minimum selling price being imposed. If it sells for more than £25, twelve months are allowed for the payment of one fifth of the price and it may be mortgaged at 4 per cent. to the government. Provision is also made for granting land for special public purposes and to municipalities, and there are other minor provisions.

An earlier Act, passed in 1882 (No. 37) provides for crown licenses to

hold from four to 250 *morgen* (1) of land for five years. The licensee is entitled to receive a grant of his holding at the end of the five years ; but must pay a perpetual annual quitrent, amounting to one twentieth of the sum at which the land was valued when it was allotted, unless he pay this latter sum in full and thus becomes exempt from obligation to pay the quitrent. The principle of this Act is elaborated in another, passed in 1892 (No. 40), which is intended to provide for the settlement of large areas, not arable or only slightly arable. It allows licenses to be granted for the occupation of farms for five years. In each of these years one twentieth of the purchase price must be paid. At the end of five years if the conditions of the license have been fulfilled, or at the end of two years if improvements equal in value to the purchase price have also been effected, the title is granted ; but the land is mortgaged to the government in order to secure such annual instalments of the purchase price, each of them amounting to one twentieth thereof, as have not yet been paid. This Act of 1892 was amended by an Act of 1908 (No. 40).

In addition an Act passed in 1891 (No. 26) provides for certain lands bought or improved by the government and also for government leases of crown lands for five years without option of purchase ; and an Act of 1893 (No. 23) allows the government to dispose of land in which the Cape government held an interest and which was acquired by the Rhodesian Railways in Bechuanaland from the Bechuanaland government. The Land Settlement Act 1912 is operative in the Cape Province as elsewhere.

Natal Province. — An Act of 1904 which dealt with land settlement in Natal was found to be defective and unworkable and has been practically suspended. The disposal of Crown Lands is now governed by the Land Settlement Act 1912 and by certain proclamations issued in 1911 and 1912. These proclamations introduced variations into the procedure authorized by the Land Settlement Act mainly as regards sugar cane lands. Such lands are granted for 99 years. For the first two years no rent is payable to the government, for the next twenty years an annual rent equal to one twentieth of the price at which the land is valued, and for the remaining years of the lease a rent of one shilling a year. The government customarily arranges for the erection and working of a central mill to which the cane grown by the tenants is brought. The lease of a suitable site for the mill and the monopoly of crushing the cane grown within a certain area by the crown tenants is granted to the millowner. The tenants' leases oblige them to enter into agreements for the crushing of their cane at the mill ; but the government settles the terms of these agreements in advance, and protects the tenants' interests as far as possible.

Transvaal Province. — The administration of crown lands in the Transvaal is based on the Crown Land Disposal Ordinance of 1903 as amended in 1906. It allows the government to dispose of unalienated crown land by grant, sale, lease, exchange or donation and to reserve it, and it provides for the establishment of a Land Board.

(1) 1 *morgen* = $2\frac{1}{2}$ acres (approximately).

Under this ordinances leases with and without option to purchase have been granted. The former are for five years and are renewable; the annual rent for the first two years is $1\frac{1}{4}$ per cent. of the purchase price, for the next three years $2\frac{1}{2}$ per cent. thereof, and for the years for which the lease may be extended 4 per cent. thereof. If advantage be taken of the option to buy, the purchase price is payable half-yearly, in advance, in equal instalments spread over twenty years, and bears interest at the rate of 4 per cent. The lessee must live on the holding and build on it a suitable dwelling-house; he may not sublet or transfer it without leave; if his lease be cancelled he is not indemnified for his improvements; minerals on his holding are reserved to the crown. If after ten years he have paid the full price of the land and fulfilled the conditions of the lease a crown grant may be issued to him.

Leases without option to purchase are for twenty-one years. The rent is usually $2\frac{1}{2}$ per cent of the value of the holding and the conditions are like those of a lease with option to purchase. Generally these leases are granted in districts in which minerals are being worked or which have been proclaimed as subject to the mining laws.

The following figures show the operation of the ordinance :

	1916	1903 to 31 December 1916
Number of lessees under the Crown	—	—
Land Disposal Ordinance. . . .	160	1,388
Number of holdings	149	1,120
Area	276,563 acres	2,379,961 acres
Approximate value of holdings . .	£ 68,870	£ 491,842

The Settler's Ordinance of 1902, as amended in 1907, also provides for five years' leases of crown lands with option to purchase. The conditions are slightly easier than those of leases granted under the ordinance of 1903: thus the rent of $2\frac{1}{2}$ per cent. is payable not only for the three latter years of the original lease but also for the first five years for which the lease is renewed; and the instalments in which the purchase price is payable are spread over thirty years. Most of the settlers under this ordinance have received government advances. In April 1912 they numbered 440 and held 380 holdings. Subsequently some of them obtained crown grants of their land. On 31 December 1916, 266 of them occupied 244 holdings under this ordinance.

The crown grants in question were obtained in accordance with the terms of the Transvaal and Orange Free State Land Settlement Amendment Act, 1912, which was itself amended in 1916, and which authorized crown grants of the holdings allotted under the Settlers' Ordinances of Transvaal and the Orange Free State. By such grant a settler acquires a quitrent title to his holding, any balance of its purchase price still due to the government being secured by a bond on the holdings. On 31 December

1916, 111 bonds were in force in the Transvaal and secured a debt of £126,327 to the government. Nine bonds for £7,425 were paid off during 1916.

Orange Free State Province. — In this province the disposal of crown lands is mainly governed by the Land Settlement Act, 1912, and the Transvaal and Orange Free State Land Amendment Act, 1912, which we have just described. The majority of the 566 settlers who held under an ordinance of the province were recommended for grants under the latter Act. On 31 December 1916, 453 bonds were in force in the Orange Free State in respect of £984,666 due to the Government.

Occupied and Vacant Land in the Union on 31 December 1916. — The following table summarizes the allotments of land made throughout the Union in 1916.

Number of holdings	389
Number of settlers.	473
Area (acres)	797,293
Valuation (£)	196,689
Rent (£).	721

The following are approximately the total areas of crown land not alienated on 31 December 1916: Cape Province 28,061,157 acres; Natal 2,528,459 acres; Transvaal 15,706,029 acres. There is practically no unalienated crown land in the Orange Free State. The figures for Cape Province do not include commons, forests and native and similar reserves, but do include game reserves; those for Natal exclude forest reserves and reserves for government purposes; and those for the Transvaal exclude forest and native reserves and reserves for government purposes. In Cape Province about half the unalienated area has been surveyed, in Natal about one ninth thereof and in the Transvaal about half. In the Cape Province the unalienated land lies principally in Bechuanaland and in the Kenhardt, Prieska and Namaqualand divisions; in Natal it is found in Zululand and along the line of the Drakensberg Mountains; and in the Transvaal in the districts of Barberton, Marico, Rustenburg, Waterberg and Zoutpansberg.

B. Native Lands.

The ownership and occupation of land within the Union by members of an aboriginal race or tribe of Africa, otherwise natives, are regulated by the Natives' Land Act of 1913. It is the principle of this Act that no person other than a native shall acquire land in a scheduled native area except with the approval of the Governor-General, and that without his approval no native shall acquire land outside such area. A statement giving particulars of these approvals accorded by the Governor-General must be placed before parliament. In pursuance of the Act a commission of enquiry was appointed to report as to areas within which natives and persons other than natives should respectively be debarred from buying, hiring or otherwise acquiring an interest in land. The commission reported on 2 March 1916 and the four following tables show its findings.

*I. Native and Mission Reserves and Lands Owned by Natives
in the Union, 1914.*

Province	Native Reserves		Mission Reserves and Lands		Lands Owned by Natives	
	Area	Percentage of area of province	Area	Percentage of area of province	Area	Percentage of area of province
	Acres		Acres		Acres	
Cape	15,021,740	8.47	502,601	0.28	840,165	0.47
Natal	6,116,142	22.83	321,959	1.42	373,316	1.66
Transvaal	2,274,750	3.22	240,588	0.34	630,654	0.89
Orange Free State . .	156,834	0.48	66,354	0.20	271,280	0.84
Union	23,569,466	7.13	1,136,502	0.36	2,115,415	0.70

*II. Native Occupation of Crown Lands and of Lands Owned
by Europeans, 1916.*

Province	Crown Lands		Lands owned by Europeans		
	Area	Percentage of area of province	Area occupied by Europeans or unoccupied	Area occupied by natives	Total area
	Acres		Acres	Acres	Acres
Cape	124,551	0.07	138,059,354	207,790	138,267,144
Natal	719,471	3.20	10,861,025	2,136,738	12,997,763
Transvaal	1,145,236	1.62	43,031,498	6,429,944	49,461,442
Orange Free State . .	—	—	31,218,615	—	31,218,615
Union	1,989,258	0.65	223,470,492	8,774,472	231,944,964

III. Number of Native per square mile on Various Classes of Land, 1916

Province	On Reserves	On Mission Lands	On Lands Owned by Natives	On Crown Lands	On European Farms	
					Unoccupied by Europeans	Occupied by Europeans
Cape	48.80	30.90	29.83	64.18	23.32	1.11
Natal	50.08	88.30	67.11	32.89	25.54	21.03
Transvaal	79.45	62.44	40.92	30.86	23.04	6.06
Orange Free State . .	70.00	17.00	11.05	—	—	5.71
Union	52.26	53.17	37.31	38.86	23.65	3.69

IV. *Approximate Number of Natives Occupying Various Classes of Land.*

Description	Cape of Good Hope		Natal		Transvaal	Orange Free State	Union
	Native territories (1)	Total for whole province	Zulu-land	Total for whole province			
<i>Rural land:</i>							
Native reserves or locations	1,012,070	1,149,438	224,010	479,822	283,144	17,200	1,929,604
Mission lands and reserves	9,295	24,335	1,426	44,535	24,024	1,768	94,662
Native owned farms	25,167	39,272	1,360	39,250	40,430	4,696	123,648
Crown lands occupied by natives . .	622	12,524	24,328	37,070	71,511	—	121,105
<i>Lands owned by Europeans:</i>							
Occupied by natives only	2,311	7,592	5,435	85,505	232,082	—	325,179
" " Europeans	22,023	239,693	9,581	356,222	390,332	278,346	1,264,593
Crown lands leased to Europeans . .	132	664	1,467	1,724	18,306	1,029	21,723
Total Rural Areas	1,071,620	1,473,518	257,607	1,044,128	1,059,829	303,039	3,880,517
<i>Urban:</i>							
Urban and mining areas —	10,409	127,990	755	37,954	322,456	48,751	537,151
Grand Total	1,082,029	1,601,508	258,362	1,082,082	1,382,285	351,790	4,417,665

* (1) Including Glen Grey, Herschel and Bechuanaland

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL, IN VARIOUS COUNTRIES.

FRANCE.

THE RETURN TO THE LAND OF PARTIALLY DISABLED MEN : *Office national de la main-d'œuvre agricole : Placement et immigration de la main-d'œuvre agricole, Paris, 1918.*

The Department of Agricultural Labour at the Ministry of Agriculture has formed a special section with a view to permitting partially disabled ex-soldiers to resettle in the country or to settle there for the first time. In order to provoke this return to the land the department has drawn up a programme which comprises on the one hand an orientation of projects towards agricultural occupation by means of appropriate propaganda, and on the other the establishment of the men in the country.

The propaganda is accomplished by means of posters, pamphlets and cinematographic films. The posters are placed in the hospitals where they can be read by all the wounded men, orderlies, nurses and doctors. They are brief, merely conveying the general idea that partially disabled agricultural workers will find the best employment in the country, and that if they wish for proof of this fact they need only read the pamphlet, " Disabled Men in the Fields ", which will be sent to them gratis on their application to the Department of Agricultural Labour.

This pamphlet is an illustrated tract published by the National Society for the Protection of Agricultural Labour with funds derived from an open subscription to cover the costs of publication. It is sent gratis to wounded men who ask for it, and shows them what agricultural situations, for which their tastes and aptitudes fit them, are open to them in spite of their disabilities.

The poster is merely meant to attract the attention of wounded men, awaken their curiosity, and induce them to put questions which the pamphlet of propaganda will answer.

The films will enable them to see with their own eyes that, although they are partially disabled, they can still do fieldwork. One film, showing men who have lost arms or legs occupied by various works of tillage, gardening and stockfarming, will be exhibited in the hospitals which contain seriously wounded men.

This propaganda work, accomplished by these three means which are mutually complementary to each other, deflects the labour of partially disabled men towards rural occupations and induces them to ask for the information with which the department must be able to supply them.

Some of them wish to enter a school of re-education and ask for information as to one in which they can be received. The Department of Agri-

cultural Labour keeps up to date a list of available places in the various schools of re-education for agricultural trades, whether private or State schools, and directs a wounded man to the school nearest the district in which he establishes himself and having agricultural conditions like those of such district. It also takes the necessary steps to procure the man's admission to this school.

There are other partially disabled men who ask to work for a time on a farm, either instead of entering a school of re-education or in order to complete their training after they leave the school. The Department of Agricultural Labour has appealed to farmers through the medium of the great agricultural societies, and has asked them to receive these men and make them into good agricultural labourers or specialized experts. These apprentices cannot at the beginning of their time do work which is worth their board and lodging, and therefore apprenticeship bursaries, which partly repay the farmers for maintaining them, have been instituted.

It is however the chief aim of the propaganda to induce partially disabled men to settle in the country as cultivators or find places there as experts, as shepherds, cowmen, gardeners, bee or poultry experts, etc. To allow of their settlement land and working capital are needed. The land can be bought or leased. The Department of Agricultural Labour has been led to request the solicitors in the various districts in France to apprise it as to small farms for sale and farms to let, and the department is therefore able to supply information to partially disabled men who have no property in view.

When once a property has been chosen it must be bought or leased, and then the live and other stock necessary to farming it must be procured. The Department of Agricultural Labour is ready to inform partially disabled men as to the facilities in the matter of credit on real estate and chattels at their disposal, to advise them, and to take all the steps necessary to satisfying their desires and enabling them to carry out their plans.

The department is not however content merely to point out existing resources. It also endeavours to provoke initiative, either of a legislative or of a private character, and thus to facilitate as far as possible the settlement in the country of the partially disabled men.

We should notice finally the importance of the agricultural machines made to compensate for the various kinds of disability. They may be looked upon as supplements to artificial limbs for they allow disabled men to undertake work of which they would otherwise be incapable. The Department of Agricultural Labour instructs the makers as to what machines they must construct, and endeavours to have stocks of them constituted, so that they can be placed rapidly, on good terms as regards price, at the disposal of the partially disabled men.

To direct the work of countrybred disabled men towards agricultural occupations, and to facilitate for them by every possible means the realization of a plan which they have been induced to form: such is, in brief, the programme of the Department of Agricultural Labour.

GREAT BRITAIN AND IRELAND.

1. THE FIXING OF AGRICULTURAL WAGES IN ENGLAND AND WALES. — *The Labour Gazette*, Vol. XXVI, No. 8, London, August 1918.

Rates of Wages Fixed. — Continuing its work, to which we have already referred (1), of fixing wages under the Corn Production Act 1917 (2), the Agricultural Wages Board has issued notices stating that the following minimum rates have been fixed for agricultural workers in the counties named :

District	Rate of wages per week	Overtime rate per hour		To operate from
		Weekdays	Sundays	
	s.	d.	s. d.	
Warwickshire.	30	8 ½	10	22 July
Leicestershire and Rutland	31	8 ½ + or 9 ±	9	
Kent	33	—	—	
Dorset.	30	—	—	
Gloucestershire.	30	8 ½	10	
Herefordshire	31	—	—	5 August
Somerset.	30	8 ½	10	
Brecon and Radnor	30	—	—	
Norfolk	—	8 ½	10	29 July
do. (team-men, shepherds and cowmen).	36	8 ½	10	
Cumberland, Westmorland and Furness district of Lancashire	35	10	1s.	5 August
Derbyshire	31	9	9	
Cheshire.	36	9	10	19 August
Wiltshire.	30	8 ½	10	
Buckingham	—	9	9	

+ For 6 hours' overtime or less. ± For overtime beyond 6 hours.

Hours of Work Fixed. — The rates of wages are fixed for a working week of six days, and of 54 hours in the eight summer months from March to October and 48 hours in the four months from November to February. Exceptions are Herefordshire where the working week has 56 hours in the

(1) See our issues for May 1918, page 436, and June 1918, page 523.

(2) See our issue for October 1917, pp. 67-70.

eight summer months ; Cheshire where it has 60 hours all the year round ; and Norfolk in so far as concerns the team-men, shepherds and cowmen for whom the fixed rate of wages applies to the hours of work customary in their county and trades on weekdays and Sundays.

Where a man is employed for his whole time by the week or a longer period the wages payable for the hours for which he agrees with his employer to work in any week, exclusively of overtime, shall be at rates not less than the fixed rates, even if his hours of work be less than those established for his district.

Overtime employment is defined as all employment in excess of 54 hours' employment on the six weekdays of any summer week, and in excess of 48 hours' employment on the six weekdays of any winter week, and all employment on Sundays. There are exceptions to this rule in Herefordshire where overtime in summer begins only after 56 hours' employment in a week ; in Cheshire where the overtime rate is paid for all work done after $8\frac{3}{4}$ hours' work on a Saturday and $10\frac{1}{4}$ hours' work on any other weekday ; in Buckinghamshire where overtime begins on weekdays after 9 hours' work in summer and 8 hours' work in winter, unless on one day in the work working hours do not exceed $6\frac{1}{2}$ hours in summer and $5\frac{1}{2}$ in winter ; and in Norfolk where the overtime employment of team-men shepherds and cowmen is all employment of them beyond the hours customary in their areas and for their trades.

The rates of wages and hours of work fixed as above are effective only in the case of able-bodied men over eighteen years of age who are wholly or partially employed in agriculture within the meaning of the Corn Production Act (1).

The fixed hours of work do not include mealtimes, but do include any time for which an employer, owing to the weather, prevents from working a workmen present at the place of employment and ready to work.

Applications for permits of exemption, as provided by the Act (2), from these provisions as to wages and working hours may be made by employer or worker to the secretary of the competent District Wages Committee. Complaints should also be addressed to this official.

Rates of Wages Proposed for Certain Areas. — The Board has also issued notices proposing to fix minimum rates of regular wages and rates for overtime employment for men employed in agriculture in Northumberland and Durham, Yorkshire, Lancashire outside the Furness district, Lincolnshire, Nottinghamshire, Shropshire, Stafford, Middlesex and Hertfordshire, Surrey, Sussex, Hampshire including the Isle of Wight, Cornwall, Glamorgan and Monmouth, Pembroke, Carmarthen and Cardigan, Merioneth and Montgomery, Anglesey and Carnarvon, Denbigh and Flint. It is similarly proposed to fix overtime rates for Herefordshire, Kent, Dorset, Devon, Brecon and Radnor.

Special Rates Proposed for Certain Classes of Workmen. — Further notices have been issued proposing to fix special rates for horsemen, cowmen

(1) See our issue for October 1917, page 68. — (2) *ibid.* page 69.

and shepherds in Yorkshire; stockmen, horsemen and shepherds in Derbyshire; stockmen, team-men and shepherds in Lincolnshire; stockmen, shepherds, waggoners and milkmen in Northamptonshire; sheep and bullock tenders in Norfolk; horsekeepers, cowmen and shepherds in Cambridgeshire, Huntingdonshire and Bedfordshire; team-men, cowmen and shepherds in Shropshire; carters, cowmen and shepherds in Berkshire; horsemen, stockmen and shepherds in Suffolk, Kent and Surrey; team-men, cowmen and shepherds in Sussex; and carters, cowmen and shepherds in Dorset and Wiltshire.

Benefits in lieu of Payment in Cash. — The Board has given notice that it proposes to make orders providing that the benefits or advantages which may be reckoned in lieu of cash as payment of wages, for the purpose of minimum rates fixed under the Act, shall include the occupation by a workman of a cottage, not reported by the Medical Officer of Health as unfit for human habitation and held of his employer. These benefits shall also include other lodging provided by an employer and the food and drink, other than intoxicating drink, he provides.

It is proposed that the value of the occupation of such a cottage be reckoned as 3s. a week, less any rent or rates paid by the occupier. In the case however of a defective cottage, or a cottage to which a customary value lower than 3s. a week attaches, or a similar case, the competent District Wages Committee may fix a lower value for the occupation. It is proposed that the District Wages Committees fix the value of the other lodging and the food and drink provided, having regard in each district to the current price of commodities, and to the normal or average value which seems to be assigned to such benefits in the current contracts for agricultural employment.

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2. THE AGRICULTURAL WORK OF WOMEN IN ENGLAND AND WALES. — *Industry and Finance.* — *War Expedients and Reconstruction*, published under the auspices of the British Association for the Advancement of Science, London 1917.

When war conditions brought about a shortage of pickers and later of male agricultural labourers, it was difficult to get women to fill the vacant places owing to a strong prejudice among both women and farmers against women working on the land. This attitude has been overcome to a considerable extent by the patriotism of the educated woman who has thrown herself into the breach with spirit and self-sacrifice and has shown, both by precept and by example, the possibilities of women's work on the land.

The placing of women on the land proceeded very slowly in the first months of the war. In 1915, however, a movement to organize Women's Agricultural Committees throughout England and Wales was started by the Board of Agriculture for England and Wales, and by the end of 1916 most counties had committees of this kind. The organization then included 4,000 registrars and about a thousand district representatives, and thousands

of public meetings had been held to convince both farmers and village women of the necessity there was for the latter to labour on the land. Undoubtedly this organization is largely responsible for the great increase in the supply of local labour which took place in 1916. But nevertheless, in spite of all the efforts made, the finding of permanent women labourers and the placing of them on the land proceeded slowly. The fault lay partly with the natural difficulties of the position, and a little, perhaps, with a prejudice which existed against labour exchanges. This prejudice is apparent from the fact that better results were often obtained by a voluntary organization, such as the State aided Women's Land Service Corps, and by the Women's War Agricultural Committees when placing women directly, than by the exchanges.

At the beginning of 1917 the movement received a great impetus because a scheme was formulated for a more extensive recruiting and training of women on a national basis. The development and extension of the work of the Women's War Agricultural Committees was at the same time undertaken by the Board of Agriculture, and these committees were thus more closely linked with the County War Agricultural Committees. The latter are composed almost entirely of men, are under the Board of Agriculture, and have executives who enjoy very wide statutory powers.

In March 1917 the energies of the women's organization came to be concentrated on an effort to secure for the land a body of permanent women workers who would serve for the period of the war, being mobilized under semi-military conditions. They would be guaranteed to the farmers as strong and physically fit, would in all cases be carefully selected, and would, when necessary, be trained in farm work for at least a month. The farmer would be expected to pay them wages at a minimum rate of 18s. a week or the rate current in the district.

The actual work of receiving applications and calling up volunteers was to be carried out by the Minister of Labour.

The first members of the resultant Women's Land Army were placed in employment about the beginning of May, and by the end of July more than 5,000 had been chosen from some 40,000 volunteers and enrolled for service on the land.

The selection was made by means of an examination of references, a medical examination and interviews. Thus many unfit candidates were at once weeded out and further eliminations took place during the period of training and during actual employment, when physical, moral and mental abilities were practically tested. Of some 20,000 candidates who appeared before the selection and allocation committees up to last September, only about a third, namely 6,500, were accepted. Of this number the great majority, nearly 5,000, required training, but about 1,500 were placed on the land directly.

There are two methods of training :

a) That which may be regarded as a system of apprenticeship. The volunteer, who has some knowledge of land work, is placed with an employer for whom she works without pay, for three weeks, she gaining in

knowledge and he instructing her in his special methods. At the end of this time he takes her into his ordinary employment and pays her not less than 18s. a week. During her apprenticeship she is maintained by the government as a bursar, at a cost not exceeding 15s. a week.

b) The training carried out by the Board of Agriculture at its special training centres, or by arrangement at certain agricultural colleges and farm institutes, or on private practising farms. The weekly cost of this training and of maintenance while it is in course must not exceed 25s. a head, and varies in practice from 15s. to 25s., being frequently 20s. The training lasts four weeks.

The greatest care is taken to ensure the maximum safety and comfort for the worker when she is placed on the land. A member of the organization must guarantee the suitability of the place of her employment and the place of her lodging before a national service volunteer is allocated to it, and after she has been placed a welfare supervisor keeps in touch with her.

In some districts there are so few cottages that the housing problem is acute. Farms are generally so scattered that permanent workers cannot find lodgings in them; and women workers can seldom be put into lodgings previously occupied by farm lands.

The guaranteed minimum wage, 18s. a week, is generally not difficult to secure, but the cost of living is so high that it is practically impossible for a worker to maintain herself decently on it. Members of the Women's War Agricultural Committees have found it necessary in some counties to counteract the lowering effect on wages of the minimum wage, since its establishment, by insisting that a minimum initial wage exceeding the cost of maintenance by 5s. a week be paid. Often the farmers have met them willingly. With such a wage, and in view of the fact that the government grants a free outfit, free travelling, and maintenance during a limited period of unemployment to the members of the Women's Land Army, they are just able to keep going. Many of the more experienced and skilled workers can secure 25s. or even 30s. a week.

Although the work of 1917 added to the supply of agricultural labour a body of women who have some claims to be considered as skilled workers, it cannot be definitely concluded that the supply of local labour was on the whole increased or improved in that year. The farmer is still in much need of reliable seasonal help, and if agriculture is not to suffer his need must be scientifically supplied.

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3. THE GROWTH OF ALLOTMENTS IN ENGLAND AND WALES (1). — *The Journal of the Board of Agriculture*, Vol. XXV, No 4, London, July 1918.

The Food Production Department of the Board of Agriculture and Fisheries recently asked the local authorities of England and Wales to make

(1) See our issues for February 1918, page 164, and March 1918, page 256.

a return showing the total number of allotments existing before the war and since its outbreak. From the figures received, and from the department's enquiries as to privately owned allotments, including those provided by railway companies, it is estimated that there are now more than 1,400,000 allotments in the country and that there were 570,000 of them before the war: some 830,000 have therefore been laid out during the war.

The following figures give an approximate idea of this enormous expansion of the movement for forming allotments. Returns obtained from 69 of the 81 county boroughs in England and Wales show that there were under 59,000 pre-war allotments in these areas; whereas at present there are over 222,000 allotments, representing an increase of about 280 per cent. 132 town councils reported just under 42,000 pre-war allotments; now there are nearly 97,000 allotments in their areas — an increase of upwards of 130 per cent. In 233 urban districts there were 42,000 pre-war allotments as compared with over 100,000 allotments now in cultivation — the latter figure representing an increase of about 140 per cent.

In December last the Food Production Department appointed certain inspectors to facilitate the obtaining of land by would-be allotment holders and generally to assist the progress of the allotment movement. In six months these inspectors visited over 400 local authorities and conferred with them as to the acquisition of land for allotments. As a result 8,550 additional acres have been laid out by local authorities, providing 127,000 additional allotments. Several thousand allotment plots have also been provided by private owners as the result of negotiations with the departmental inspectors. As an example of the useful work done by the Food Production Department's officers, the case of a single large local authority may be quoted. In the first instance this authority proposed to provide only 16 $\frac{1}{2}$ acres of land this year for the purpose of allotments. After the representations of the departmental inspectors, addition after addition was made to the proposed area; and in the end the authority actually provided 249 acres, giving 7,470 allotments.

The grand total of allotments in England and Wales at present covers an area of about 200,000 acres. Taking this figure — and estimating that 50 per cent. of each allotment is planted with potatoes (a moderate estimate)—we have 100,000 acres of potatoes on our allotments. If these produce an average of 7 tons per acre (a moderate assumption for garden and allotment potato crops) this means that the allotment holders of England and Wales will grow this year 700,000 tons of the most essential war-time crop practically on the spot where this crop is to be consumed.

Next Year's Allotments. — Quite a number of local authorities are looking ahead and arranging for allotments to be laid out for cultivation next year. Amongst these are the local councils of Thrapston (Northants), which is arranging for 4 $\frac{3}{4}$ acres; Handsworth (West Riding of Yorkshire), 6 acres; and Shipley, 3 acres.

Allotments at Alexandra Park. — Fifteen acres of land at Wood Green are being laid out to provide 225 war-time allotments. This land adjoins the race track at Alexandra Park and is the property of the Alexandra

Park Race Course Syndicate. The Syndicate has agreed to surrender the land for spade cultivation, and the Cadet Corps of the Women's Land Army will undertake the work after this year's hay crop has been harvested.

A Famous School-town and its Allotments. — Oundle, the little Northamptonshire town where there is a famous school, is among the places that have done exceptionally well in the matter of allotments. Two hundred and fifty-seven householders are cultivating an aggregate of $33 \frac{1}{2}$ acres of land. In addition the boys at the school have $8 \frac{1}{2}$ acres of allotments, whilst even the inmates of the workhouse are doing their share by growing foodstuffs on $2 \frac{1}{2}$ acres. Moreover, upwards of 50 per cent. of the 580 houses in the town have gardens attached to them, and these on the whole are being judiciously cultivated.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Fifty-eight governments are now adherent to the Institute.

The Institute is a government institution in which each country is represented by delegates. It is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance, and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary, measures for the protection of the common interests of farmers and for the improvement of their condition, utilising for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown (100 heller) (Austria-Hungary)	=	10d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1s. 1 $\frac{1}{2}$ d.	at par
1 Deciatine (2 tchetwert) (Russia)	=	2.69906	acres
1 Dinar, gold (100 para) (Serbia)	=	9 $\frac{23}{64}$ d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	4s. 5 $\frac{1}{16}$ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	9 $\frac{33}{64}$ d.	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1s. 7 $\frac{53}{64}$ d.	at par
1 Franc (100 centimes) (France)	=	9 $\frac{33}{64}$ d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 $\frac{23}{64}$ d.	at par
1 Leu (100 statinki) (Bulgaria)	=	9 $\frac{33}{64}$ d.	at par
1 Lira (100 centesimi) (Italy)	=	9 $\frac{33}{64}$ d.	at par
1 Litre	=	0.21998	gallons
	=	0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 $\frac{3}{4}$ d.	at par
1 Mark (100 penni) (Finland)	=	9 $\frac{33}{64}$ d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	2s. 2 $\frac{61}{64}$ d.	at par
1 Milreis, gold (Portugal)	=	4s. 5 $\frac{29}{64}$ d.	at par
1 Peseta, gold (100 céntimos) (Spain)	=	9 $\frac{33}{64}$ d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	3s. 11 $\frac{37}{64}$ d.	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18s. 0 $\frac{15}{64}$ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold (100 kopeks) (Russia)	=	2s. 1 $\frac{3}{8}$ d.	at par
1 Rupee, silver (16 annas) (British India)	=	1s. 6d.	at par
1 Talari (20 piastres) (Egypt)	=	4s. 1 $\frac{11}{32}$ d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold (2 fun or 100 sen) (Japan)	=	2s. 0 $\frac{37}{64}$ d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

ARGENTINE REPUBLIC.

THE ACTIVITY OF AGRICULTURAL CO-OPERATIVE SOCIETIES.

SOURCES :

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- GIROLA (Carlos D) Las cooperativas agrícolas en la Argentina, Decimo Congreso internacional de Agricultura, Gante 1913 Contribución al estudio de la 1ª sección (*Agricultural Co operative Societies in Argentina Tenth International Congress of Agriculture, Ghent 1913, Contribution to the Studies of the First Section*) P Gandola, Buenos Ayres, 1913
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§ 1 THE BEGINNINGS OF CO-OPERATION

Rural co-operation in the Argentine Republic is of very recent date. The earliest manifestations of the movement in this country occurred only fifteen years ago in the vast regions of the Plata where some

chacareros or small farmers had the idea of uniting in order to escape to from the *almacenero*, a middleman of a usurious character who acts as engrosser within a large district, arbitrarily centralizing all agricultural business transactions. The years which have passed since co-operation thus arose are a short period in which to judge of the fruit borne by the seed sown by the co-operative movement in the Argentine country, especially in view of the fact that from the beginning the germination of this seed was hindered by fairly numerous natural difficulties.

Our reader already know what obstacles there were in the way of the rapid diffusion of rural co-operative societies in Argentina (1) and we need not therefore recur to them. We would merely recall that among the chief of these obstacles were the thinly populated character of rural districts and the heterogeneity of their population, the vast area of most farms, the distances separating these farms from inhabited centres, and finally difficulties of transport and the insufficiency of means of transport.

But all the obstacles to co-operation, except the individualism and the suspiciousness of the immigrants who are the chief element of the Argentine rural population, are such that, although at first they rendered the spread of the movement difficult, they are, as they ought to be, invariably and increasingly stimulating to it. The isolation in which an Argentine farmer lives, his small knowledge of home and foreign markets and the difficulties he encounters in sending his produce to these markets, place him completely at the mercy of engrossers and middlemen, whether local or belonging to business centres, not only when he wishes to sell his produce but also when he wishes to buy the implements and other goods necessary to his farm and when he wishes to procure the capital of which he frequently stands in need and which he does not possess. He is in the same case when he has to deal with unforeseen contingencies or recover from the losses to his crops which are due to natural causes. In brief, this apparent obstacle to the rapid progress of co-operation in the Argentine is in truth no more than an accentuation of a universal cause for that union of individuals in co-operative groups which aims at the improvement of their position and the position of the industry they practise.

It cannot be said that the time in which natural conditions have this favourable effect has yet arrived. But the data which we will reproduce will show that the development of agricultural co-operation has proceeded surely if not rapidly.

§ 2. THE AGRICULTURAL CO-OPERATIVE SOCIETIES AND THEIR ACTIVITY.

With regard to the forms and the organization of the Argentine agricultural co-operative societies our readers will find details of every kind in the paper in our earlier issue to which we have already referred (2). The

(1) See our issue (*Monthly Bulletin of Economic and Social Intelligence*) for December 1913.

(2) See preceding note.

official statistics, from which we borrow the data which we will presently reproduce, group these societies as a) mixed co-operative shareholding societies, b) co-operative and mutual societies in the colonies of the Jewish Colonization Association, c) rural funds of the Raiffeisen type founded by the *Liga Social Argentina*, d) shareholding co-operative societies for growing fruit and vines, e) shareholding co-operative societies for irrigation, f) co-operative agricultural joint stock banks, g) co-operative mutual credit and insurance societies. Of these societies those which belong to the three former groups transact business of the most various kinds within the sphere of co-operation, while those of the four latter groups generally devote themselves to the realization of special objects.

In speaking of the activity of these societies we will merely give detailed data for the years 1913-14 and 1914-15, because these are the latest data we possess and because official statistics for the agricultural co-operative societies were not kept in the Argentine until 1913. The data we have suffice however to give an idea of the position and the activity of the societies.

a) *Mixed Co-operative and Shareholding Societies.* — In the agricultural year 1914-15 there were 39 societies of this kind in the Argentine Republic, four more than in the previous year. Their total membership was 22,351 as against 19,531 in 1913-14. The total capital they held increased between these two years, as appears from the following figures :

	1913-1914	1914-1915
	pesos	pesos
A. Nominal capital	3,925,000.00	4,755,000.00
B. Subscribed capital	1,487,865.00	1,689,624.00
C. Paid-up capital	1,340,701.99	1,524,388.24
D. Reserve and $\frac{1}{2}$ Thrift Fund . . .	69,522.12	94,309.69
Total effective capital (C + D) .	1,410,223.11	1,618,697.93

If we examine the business done by co-operative societies of this group, we find that, as their name indicates, they are most various, their activities extending from the collective purchase of articles of consumption to insurance against hail and against fires occurring in agricultural machines (1). The most important branch of their activity is however that of collective purchase, especially the collective purchase of machines, sacks and articles of consumption. If the sums covered by transactions of this kind in the two years which we are examining be combined we find that, apart from the sums covered by insurance, they were 5,618,943.24 pesos in 1913-14 and 6,880,301.28 pesos in 1914-15. This increase of more than 1,200,000 pesos is due essentially to the increase in collective purchases and in loans of merchandise. The fact is clear from the following figures :

(1) We should notice that in the statistics for 1913-14 the data as to mixed and consumers' co-operative societies are separated, whereas in those for the next year they are combined. Further, among the transactions undertaken by societies of the latter kind is insurance against fires occurring in agricultural machines.

	1913-1914 pesos	1914-1915 pesos
Collective purchases, etc.	3,445,092.78	4,772,281.36
Collective sales of grain, wine, fruit, tobacco, etc.	2,147,209.64	2,005,304.07
Credit in merchandise	—	823,569.48
Credit in cash	64,852.20	97,625.85
Other business	1,798.62	5,000.00
Total . . .	5,618,993.24	6,880,301.28

In the sphere of insurance, whether against hail or against fires in agricultural machines, a notable reduction is shown in the business done by the mixed co-operative societies in 1914-15 as compared with the previous year. Thus with regard to insurance against hail the number of policies fell from 1018 to 480, the insured area from 98,774 hectares to 28,673 hectares and the insured value from 3,191,193 pesos to 1,119,470 pesos. The corresponding amount of the premiums received fell from 130,666.14 pesos to 37,553.10 pesos, and the damages paid passed from 71,148.32 pesos to 6,991.78 pesos. In insurance against fire the fall was no less. Here the number of policies fell from 81 to 12; the insured value from 309,889 pesos to 9,650 pesos; and premiums received from 23,071.61 pesos to 611 pesos. In 1913-1914 damages paid amounted to 3,806.58 pesos; in 1914-1915 none were paid.

The liquid profits realized by the mixed co-operative and shareholding societies in 1914-1915 (1) amounted altogether to 286,985.83 pesos, distributed as follows : as dividends 170,212.71 pesos; to members in proportion to their business 41,033.05 pesos; to the reserve and thrift fund 32,876.72 pesos; variously — as management commissions, to employees, as amortization payments, etc. — 42,863.35 pesos.

b) *Shareholding Co-operative and Mutual Societies in the Colonies of the Jewish Colonization Society.* — These societies numbered five in 1914-1915, having neither increased nor diminished since the previous year. Members numbered 1,967 as against 1,986 in 1913-1914.

Between these years the capital of these institutions oscillated slightly as follows : the nominal capital rose from 689,600 to 837,580 pesos; the subscribed capital fell from 439,380 to 425,126 pesos; and the paid-up capital and the reserve and thrift fund rose, respectively, from 176,014 to 203,870 pesos and from 161,547.30 to 173,311.24 pesos; so that the total effective capital increased by 39,629.94 pesos.

Operations of purchase, sale and loan undertaken by these co-operative societies covered altogether 1,642,308.81 pesos in 1913-1914 and 3,315,657.83 pesos in 1914-1915. The increase is due to the increase in collective sales, the value of which passed from 488,502.51 to 2,015,000 pesos, to that in

(1) The statistics referring to 1913-1914 include no detailed data as to the profits of the co-operative societies.

loans made in meri handise which reached a value of 157,577.24 pesos, and to that in loans in cash which passed from 253,300 to 857,829.92 pesos. Collective purchases, on the other hand, fell in value from 437,124.51 to 408,706.56 pesos, and miscellaneous operations from 463,301.79 to 34,121.35 pesos.

As regards insurance business, these institutions did none until 1914-1915, in which year they devoted some activity to insurance against fires in the agricultural machines of their members. In this year 154 policies of insurance of this kind were issued and they insured property worth 105,000 pesos; the premiums received amounted to 1,144 pesos and the damages to 602 pesos.

In 1914-15 these co-operative and mutual societies realized liquid profits amounting in the aggregate to 31,931.52 pesos, distributed as follows: to dividends 6,440 pesos; to members proportionately to their business 11,945.79 pesos; to reserve and thrift funds 8,863.83 pesos; to miscellaneous objects 4,681.90 pesos.

c) *Rural Funds of the Raiffeisen Type founded by the "Liga Social Argentina"*. — These funds numbered four in 1913-1914, eleven in 1914-1915; their members 116 in the former and 377 in the latter year. Their business, which comprises loans, deposits and collective sales and purchases, covered 293,758.77 pesos in the former and 1,107,589.01 pesos in the latter of these years. The last figure comprises 779,707.90 pesos for collective sales; 149,500 pesos for loans in cash; 116,890 pesos for collective purchases; and 61,500 pesos for deposits (1).

d) *Shareholding Co-operative Fruit and Vinegrowing Societies*. — In 1914-15 three of these co-operative societies were active, in the previous year only one of them. The two new societies were constituted during the year. The total membership was 136 as against 20 in 1913-1914.

The nominal capital of the three co-operative fruit and vine-growing societies was 132,000 pesos, and the subscribed capital 102,780 pesos of which 90,916.37 pesos were paid up. The reserve and thrift fund was 130.17 pesos. The effective capital of the three societies therefore amounted to 91,046.54 pesos in 1914-15, as against the 51,040 pesos which constituted the capital of the first of them in 1913-1914.

The business of these societies consisted in collective sales of fruit and wine which had covered 249,609.69 pesos by the end of 1914-1915.

e) *Shareholding Co-operative Irrigation Societies*. — From 1913-1914 to 1914-1915 the number of these societies — four — did not vary, but their membership passed from 673 to 634.

Their nominal capital was 2,300,000 pesos, their subscribed capital 1,798,600 pesos and their paid-up capital 1,736,463.93 pesos. The reserve fund amounted to 1,194.41 pesos. The effective capital of these four societies in 1914-1915 was therefore 1,737,658.34 pesos as against 1,731,113.93 pesos in the previous year.

Besides their special business these societies undertook collective transactions — purchases, loans, etc. — covering a value of 136,309.99 pesos.

(1) There are no data as to the capital of these funds.

f) *Shareholding Co-operative Agricultural Banks.* — The statistics as to the farming year 1914-1915 include data as to the first co-operative agricultural bank. It has 1,115 members and a nominal capital of 3,000,000 pesos. At the end of 1914-1915 its subscribed capital amounted to 650,000 pesos of which 587,525 pesos were paid up, and its reserve fund to 76,318.93 pesos. Its effective capital was thus 663,843.93 pesos.

Its loans in cash in 1914-1915 amounted to 265,840 pesos, its liquid profits to 3,214.36 pesos.

g) *Co-operative Mutual Insurance and Credit Societies.* — In 1913-1914 societies of this group numbered seven, in 1914-1915 ten; their membership was 9,571 in the former and 11,194 in the latter year.

In 1914-1915 their nominal capital was 585,000 pesos of which 421,269.36 pesos had been paid up; the thrift and reserve fund amounted to 1,189,794.19 pesos. Their effective capital was therefore 1,611,063.55 pesos.

In 1913-1914 in addition to their insurance business they made cash loans to their members amounting to 189,793 pesos and undertook various collective transactions covering a value of 358,683.77 pesos. All the insurance undertaken this year was against hail. The policies issued numbered 5,507 and insured 836,892 hectares for a value of 24,701,482.80 pesos. The amount of the premiums received was 1,215,980.21 pesos, that of damages paid was 701,442.49 pesos.

In 1914-1915, on the other hand, these societies undertook more agricultural insurance, insuring also against machinery fires. They issued 7,264 policies insuring 1,369,630 hectares, worth 40,516,890.64 pesos, against hail. These figures had almost doubled since the previous year. Premiums received amounted to 1,985,138.70 pesos, damages paid to 1,479,373.95 pesos. Ninety-four policies issued to insure against fires covered a value of 496,718 pesos. Under this head the societies received 1,961.82 pesos in premiums and paid damages amounting to 11,479.84 pesos.

The liquid profits of mutual co-operative societies in 1914-1915 aggregated 178,283.70 pesos, distributed as follows: dividend to capital 7,366.58 pesos; to members in proportion to their business 87,264.38 pesos; to reserve and thrift fund 58,813.08 pesos; to managing staff as salaries and to amortizations, etc. 18,839.66 pesos.

The activity of the co-operative societies in the Argentine Republic in 1913-1914 and 1914-1915 is summarized in the appended comparative Tables I and II while Table III affords a complete picture of the position of these societies in the three years from 1912-1913 to 1914-1915.

§ 3. PRESENT POSITION OF CO-OPERATION.]

It is evident from the data we have given that progress has been made in the two years we have considered. The progress would be, to judge from the local press, yet more evident if we could add more recent data. Rural co-operation in Argentina is, as we have said, in the first phase of its development.

Our data confirm our statement in the first paragraph of this paper as to the natural conditions of this country and the conditions in which the co-operative movement is spreading. These conditions are apparently inimical, but the co-operative societies are able to arise and to develop and their activity gives satisfactory results. This is proved in particular by the co-operative societies insuring against hail and agricultural machinery fires, which have hitherto had the largest development owing to the immediate advantages they procure for their members. The evidence of their usefulness has more than sufficed to conquer to a great extent the obstacles to their constitution which were encountered in every district, as well as the opposition of established interests and the apathy of farmers who are mostly immigrants and are individualistic to excess. In view of their fortunate beginning it is not too much to prophesy for this group of co-operative societies an increasing development.

The mixed co-operative societies for the purchase and sale of agricultural products and machines, those of consumption and those converting products, etc. are beginning to give proof of the advantages they offer and to gain rural public opinion. Their development is the more sure to increase because they are of great service to their members. In this matter the organizers of co-operative societies committed an initial error, comprehensible since the introduction of cooperation into a new country enjoying the conditions which particularize the Argentine was involved. They were attached to the co-operative form and thought they could obtain disproportionate results from the beginning if they applied the same co-operative instrument to entirely various ends and for the discharge of incompatible functions. The services which these societies render their members will grow as they are increasingly specialized. Co-operators understand this themselves, as is proved by the data relative to agricultural insurance, which show that as the business of this kind done by the mixed co-operative societies diminishes the co-operative insurance societies develop.

One of the fortunate consequences of rural co-operation in the Argentine is that the small cultivators, who used to be the victims of local usury, are able to obtain the credit they need so much. The institution in 1914-1915 of the first co-operative bank in the country marks a very important step on the road of agricultural credit. It is to be hoped that the State will as much as possible favour the constitution of societies of this kind which may be a source of many advantages to the national agriculture.

In connection with State intervention it should be noted that one of the needs which are most felt by agricultural interests in the Argentine is that of special legislation for co-operative societies.

In spite of proposed laws presented to the Chambers and the subject of discussion (1), these societies are still governed by the general provisions of the commercial code which hardly allow of the realization of the various co-operative forms. Special legislation, whereby co-operative societies will

(1) For proposed laws on agricultural co-operative societies see the article already cited.

TABLE I. — *Purchases, sales, loans and other transactions c*

Societies	Value			
	Collective purchases		Collective sales	
	1913-14	1914-15	1913-14	1914-15
Mixed co-operative societies	3,445,002.78	4,772,281.36	2,147,209.64	2,005,394.0
Co-operative societies of the <i>Jewish Colonization association</i>	437,124.51	408,706.56	488,502.51	2,015,000.0
Funds of <i>Liga Social Argentina</i>	6,186.00	116,890.11	287,572.77	779,707.9
Co-operative fruit and vinegrowing societies.	—	—	—	249,609.6
Co-operative irrigation societies	—	—	—	—
Agricultural banks	—	—	—	—
Mutual co-operative societies	—	—	—	—
Total for all societies	3,888,403.29	5,297,878.03	2,923,284.92	5,049,711.6

TABLE II. — *Insurance business of the agricultural co*

Societies	Insured area		Number of policies	
	1913-14	1914-15	1913-14	1914-15
hectares				
<i>Insurance against</i>				
Co-operative mutual societies	836,892	1,363,630	5,507	7,264
Mixed co-operative societies	98,774	28,673	1,018	480
Total	935,666	1,398,303	5,525	7,744
<i>Insurance against fire</i>				
Co-operative mutual societies . . .	—	—	—	94
Mixed co-operative societies. . . .	—	—	81	12
Co-operative societies of the <i>Jewish Colonization Association</i>	—	—	—	154
Total	—	—	81	260

agricultural co-operative societies in 1913-14 and 1914-15 (in pesos).

operations

Loans in kind		Loans in cash		Other business		Total for all business	
1913-14	1914-15	1913-14	1914-15	1913-14	1914-15	1913-14	1914-15
—	823,569.48	64,892.20	97,625.85	1,798.62	5,000.00	5,658,993.24	6,880,301.28
—	157,577.24	253,300.00	857,829.92	463,381.79	34,121.35	1,642,308.81	3,315,657.83
—	—	—	149,500.00	—	—	293,758.77	1,046,098.01
—	—	—	—	—	—	—	249,609.09
—	—	—	—	—	136,209.99	—	136,209.99
—	—	—	265,840.00	—	—	—	265,840.00
—	—	189,793.00	—	358,436.77	—	546,436.77	—
—	981,146.72	507,985.20	1,370,795.77	358,436.77	175,331.34	8,143,497.59	11,893,216.80

operative societies in 1913-1914 and in 1914-15.

Insured value		Premiums received		Damages paid	
1913-14	1914-1915	1913-1914	1914-1915	1913-1914	1914-1915
pesos		pesos		pesos	

land.

24,701,482.80	40,516,890.61	1,215,980.21	1,985,138.70	—	1,479,373.95
3,191,199.00	1,119,470.00	130,666.14	37,553.10	701,442.49	6,991.78
27,892,681.80	41,636,360.64	1,346,646.35	2,022,691.80	772,590.81	1,485,365.65

in agricultural machines

—	496,718.00	—	31,961.82	—	11,479.84
309,889.00	9,650.00	23,081.61	611.00	13,806.58	—
—	105,000.00	—	1,144.00	—	602.00
309,889.00	611,368.00	23,081.61	33,716.82	13,806.58	12,081.84

TABLE III. — *Summary of the position of agricultural co-operative societies from 1912-1913 to 1914-1915.*

	1912-13	1913-14	1914-15
Total number of societies	34	56	73
" " " members	13,371	19,531	22,531
Total effective capital \$ m/n (1) . . .	3,257,796 40	5,079,177.28	6,099,501.53
" profits \$ m/n	680,752 21	321,270.80	494,415.41
Value of operations of purchase, sale, lending, etc. \$ m/n	4,905,764 68	8,143,497.59	11,955,216.80
Value insured against hail	43,600,491.00	27,892,681.80	41,636,360.64
" " fire	540,500 00	309,889.00	611,368 00

(1) National money.

be regulated and their organization facilitated as in other countries, are an imperative necessity. They are so the more because, according to the economists of the country, facilities supplied by legislation would lessen the national difficulties which, as we have already remarked, the co-operative movement encounters in this country, and which this movement will not overcome as rapidly as its promoters hope unless it have external aid.

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

AUSTRALIA.

AGRICULTURAL CO-OPERATION IN THE STATE OF VICTORIA. — *Victorian Year-Book* 1916-17. Melbourne, 1918.

Agricultural and horticultural societies, aiming at the improvement of the agricultural, pastoral and horticultural industries, have been established throughout the State of Victoria. The following table summarizes data contained in returns for the year 1916 made by 95 agricultural societies:

Societies	Area cultivated	Number of members	Govern- ment grant	Total receipts including govern- ment grant	Total expen- diture	Liability for loans and overdraft on banks
	Acres		£	£	£	£
Royal (Melbourne)	48	2,000	675	29,722	24,335	44,951
Ballarat	10	70	81	179	291	618
Benalla	12	304	46	855	836	727
Bendigo	10	300	0	1,540	1,830	290
Colac	12	310	66	1,070	1,070	161
Hamilton,	21	260	3	1,060	1,060	100
Horsham and Wimmera, . . .	29	560	0	1,383	894	997
Korumburra	16	223	43	704	640	886
Ovens and Murray	39	277	2	1,102	1,164	468
Shepparton	24	431	0	1,692	1,603	2,604
Other societies	1,220	10,699	700	27,409	26,734	14,687
Total in 1916	1,441	15,435	1,616	66,716	60,457	66,489
Total in 1915	1,666	15,726	3,253	58,204	62,971	65,213
Total in 1914	1,748	19,118	4,022	72,339	82,707	40,715
Total in 1913	1,637	19,916	3,496	76,770	78,708	30,358
Total in 1912	1,774	21,382	2,837	72,214	74,069	28,183

Forty horticultural societies also made returns for 1916. Their membership was 3,235; their total receipts for the year, including a

government grant of £29, amounted to £4,037 ; their total expenditure to £3,702 ; and their total liability for loans and overdrafts on banks to £1,189.

CANADA.

1. CO-OPERATION IN THE DAIRY INDUSTRY OF SASKATCHEWAN. — BRONSON-COWAN (H) : "Saskatchewan Dairy Farmers adopt Big Business Methods" in *Farm and Dairy and Rural Home*, Peterboro (Ontario), 15 August 1918.

The Saskatchewan Co-operative Creameries, Limited, was incorporated on 10 March 1917. Its authorized capital of \$500,000 is divided into \$20 and into some \$1 shares. No dairy farmer may hold more than 50 shares of \$20 each. No voting by proxy is allowed. The dividends on the company's paid-up capital shares are limited to 10 per cent. per annum. Additional suppliers' dividends may be declared. The government of the province of Saskatchewan may authorize the provincial treasurer to lend the company as much as 75 per cent. of the costs of any building and plant needed for the company's business. The rate of the interest charged may not exceed 6 per cent. per annum and twenty years are allowed for the repayment of the loans. The government moreover guarantees the company's loans from the bank up to \$350,000, the company assigning certain securities to the government and the bank in return.

Some nineteen creameries signified their willingness to enter the company. A board of appraisers was appointed, consisting of three members of whom one was chosen by the government, one by the new company and one by the local creameries. This board placed a valuation on each local creamery. The farmers then surrendered the stock they held in the local creamery and took instead a corresponding amount of stock in the new company. As the appraised value of the several creameries varied, and hence the value of the farmers' shares, the plan was adopted of issuing a certain number of \$1 shares in the new company in order that differences might be more readily adjusted.

Of the company's authorized capital — \$500,000 — \$196,000 had been issued last June, \$108,000 having been sold to farmers since the date of the company's foundation and \$88,000 issued to previous holders of stock in the local creameries. The company has 5,000 shareholders and there are 8,126 suppliers of its creameries. Of the total amount of about 4,000,000 pounds of butter manufactured in the province last year these creameries made 2,482,400 pounds, 1,721,953 pounds being made by some ten independent creameries. Of the credit guaranteed by government the company has so far used only \$150,000, this advance being secured on the output of the creameries. Where the government advances up to 75 per cent. of the cost of erecting a new creamery, security is supplied by assigning the unpaid capital stock of the farmers whom the dairy serves as well as by a first mortgage on the property.

As regards management, the Saskatchewan Co-operative Creameries Limited has followed the method of the Saskatchewan Elevator Company. Local societies have been formed in connection with each creamery, and they advise with regard to the management of their respective creameries and appoint directors who attend the annual meetings of the company. The members of the board of directors are chosen from the delegates at this meeting. But this plan works less well than it does in the case of the Elevator Company, because the suppliers of the creameries are more scattered than are the members of that company and often have to consign their cream by rail. Its likely therefore that the plan will be modified.

The first advantage which it is hoped that the society will procure is a greater uniformity in produce due to the fact that the buttermaking will be controlled by the central organization. Purchasers will know that they can depend on the quality of certain fixed kinds of butter, and will therefore contract to buy in larger quantities and full carloads. It is hoped that the demand will thus be increased, at least in a measure greater than that which would be possible by any other method. The central organization will also enable large economies in that it will buy the requisites of its adherent dairies wholesale. Moreover its cold storage, which already is sufficient for the preservation of sixty carloads of butter, will allow the butter to be placed on the market at the most favourable moment.

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2. A FEDERAL ORGANIZATION OF STOCKFARMERS. — *The Farmer's Advocate and Home Magazine*, No. 1353, London, Ontario, 29 August 1918.

We have already noted that last February the sheepfarmers of Canada grouped themselves as the Canadian Co-operative Wool Growers, Limited. This centralizing movement has made a further step onwards in that a Canadian National Live Stock Council has been formed. Henceforth the associated stockfarmers form part of a vast organization which can take effective action and which has at its base the local associations, and includes also the provincial associations and beyond them the Eastern and Western Canada Live Stock Unions. The council is thus the culmination of the structure.

It has developed rapidly.

In the spring of 1913 a number of delegated stockfarmers met at Calgary and founded the Western Canada Live Stock Union whose aim is stated to be "to represent and promote the live-stock interests in all matters of common concern with the object of fairly securing the enjoyment of all rights and privileges, and in so doing to make a wrong of a general nature against any the concern of all". Its field is west of the Great Lakes. The analogous Eastern Canada Live Stock Union was founded only in 1918. A provincial association may be represented in either of these unions if it

pay \$ 25. A breed association may by paying the same fee join both the Eastern and the Western Unions, the money thus received being divided between the two.

Early in April 1918 representatives of the two unions, of many of the breed associations and of the Record Committee met in Toronto to complete the organization. They formed the Canadian National Live Stock Council which has eleven members, namely five representatives of the Western Canada Live Stock Union, three of the Eastern Canada Live Stock Union, two of the Record Committee, and the chairman of the Record Committee who is president of the council.

The council is financed by the breed associations most of which have agreed to grant it at least 5 per cent. of their annual income.

The following are some of the points which will engage the council's attention : railway rates and classifications ; transport by rail and steamer ; regulations for importation and exportation ; marketing of live stock and other products ; the health of animals ; facilities for storing, in cold storage and otherwise, meat and other products including wool, and for slaughtering animals ; pertinent advice to the Minister of Agriculture ; farm labour ; Dominion legislation affecting agriculture, including that allowing grants and appropriations of public money ; all matters pertaining to agriculture from the standpoint of the Dominion as a whole.

* * *

3. THE DEVELOPMENT OF CO-OPERATIVE CREDIT IN MANITOBA. — COLQUHTE (R. D.) in *The Grain Growers' Guide*, Winnipeg, 21 August 1918; *Farmer's Advocate and Home Journal*, vol. LIII, No. 1333, Winnipeg, 21 August 1918.

A little more than a year ago the Manitoba Legislature passed an Act called the Rural Credit Societies Act. It empowered the farmers in any municipality to form a rural credit society, pledging their stock as combined security for loans to individual members. Money might not be lent at a higher rate of interest than 7 per cent., which meant that it could be borrowed at 6 per cent., 1 per cent. being allowed for expenses. The provincial government subscribes 25 per cent. of the society's stock, the municipality 25 per cent. and the members 50 per cent. There are nine directors of whom three are appointed by the members of the society, three by the municipality and three by the government.

In all seventeen societies have been incorporated under the Act and ten are already lending money.

In order to show the practical advantages of this organization of rural credit we will give details as to the working of one of the societies in question, the Roblin Rural Credit Society organized in the Shell River municipality. This municipality has a total area of 184,960 acres of which only 50,000 acres are under cultivation. The problem of developing the uncultivated

land on each farm is largely responsible for the organization of the local rural credit society.

The Roblin Rural Credit Society was incorporated on 16 February 1918 when it had 57 members. It became active on 20 April and had 85 members on 9 August. The following figures show its financial situation :

Capital authorized	\$20,000	
	Stock subscribed	Stock paid-up
by farmers	8,500	850
by government	2,500	250
by municipality	3,500	350
	\$14,500	\$1,450

Loans passed in 1918.

For sowing and harvesting	16,496
For breaking up land	10,335
For buying machinery	3,050
For improvements	3,505
For cattle, horses, etc.	9,205
For floating liabilities	1,650
	\$44,241

These \$ 44,241 were lent to 64 farmers who represent a net sum of \$ 630,000 or an average of about \$ 10,000 each.

Application for a loan is made on a regular form on which are stated the amount of money which is required and the purposes for which it is required, the date of repayment and the rate of interest. A complete statement as to the applicant's affairs accompanies the application: it mentions the number of acres he holds and their situation; the extent to which they are encumbered if they are so; a complete valuation of his assets including his agricultural land, buildings, implements, livestock, supplies and outstanding credit; and of his liabilities including the mortgages on his property, the liens on his machinery or implements and his debts to his bank and others. The amounts of his hail, fire and life insurance are also stated.

The whole statement is carefully scrutinized by the board. Before a loan is approved it must be passed by a majority of the board of directors : if only seven of them are present five of them must vote in favour of it. Loans mature on 31 December in each year ; but if the money is needed for such purposes as the purchase of cattle or the breaking up of land which will not yield a return until the following year, a notification that a renewal of the loan will be requested accompanies the application for it, and it may then be renewed on the following 1 December and mature a year later.

The society does not handle the money lent. All the loans granted are guaranteed by the society, the president and secretary giving their signature, and the money is paid by the bank to the applicant directly. The security is a lien on all the surplus assets of the applicant. Generally the directors look for repayment to the product of the operation for which the loan is granted. Thus if \$ 1,000 is borrowed for putting in and harvesting a crop, it is expected that the first charge on this crop will be the repayment of the loan. A certificate is filed in the registry office as soon as the loan is granted. The farmer is not limited in any way by the transaction : he can still dispose freely of his stock or crops ; but he is under obligation to settle with the society as soon as the sale has been completed. The certificate is cancelled as soon as the loan is repaid.

Generally speaking, loans are secured by the net assets of borrowers, as these are shown in the applications which the directors check.

The net assets of the men who obtained loans this year varied from \$ 2,000 to \$ 5,000. The following are two examples of loans made to well-to-do farmers : A borrowed \$ 1,500 ; and spent \$ 230 on harvesting, \$ 300 on digging a well, \$ 110 on binder twine ; \$ 60 on a plough ; and \$ 800 on paying an outstanding debt. B borrowed \$ 1,300 ; and spent \$ 250 on buying a horse, \$ 365 on machinery ; \$ 130 on harvesting ; \$ 355 on seed ; and \$ 200 on breaking up and clearing new land.

The largest sum has been borrowed for the running expenses of the farming season, the next largest for breaking up new land.

It is estimated that well over 2,500 acres have this year been prepared for sowing by means of the credit furnished by the society.

GERMANY.

THE AGRICULTURAL CO-OPERATIVE SOCIETIES IN 1916-1917. — Summary of data in the Yearbook of the Imperial Union of German Agricultural Co-operative Societies, in *International Co-operative Bulletin*, 11th year, No. 9, London, September 1918.

At the end of 1916-1917 there were 29,082 agricultural co-operative societies in the German Empire, this number having increased by 330 since the previous year. The new societies include representatives of all the groups except that of co-operative dairies. The number of new savings and loan banks, 84, is however small, a fact due first to the plentiful supply of ready money which lessened the demand for credit, and secondly to the

fact that experienced persons able to establish these societies were not available. The increase in the number of purchase and sale societies, 78, was somewhat more satisfactory. The miscellaneous societies recorded the largest increase, one of 168. On 1 June 1917 there were 95 central co-operative societies; 12,912 savings and loan banks; 2,954 purchase societies; 3,594 co-operative dairies; and 4,535 miscellaneous co-operative societies. The membership of these societies is estimated at 2,800,000. Seventy-nine per cent. or about four fifths of German co-operative societies are agricultural.

The co-operative loan and savings banks form the largest group. They received very substantial deposits in 1916-17 but the demand for personal credit was small. Co-operative purchase societies had a very limited scope for their activities because the free purchase of agricultural requisites was restricted. For the distribution and allocation of rationed goods there seems to have been too little recourse to co-operative societies. Co-operative dairies have suffered much by the war, for they have had to work under government control and to meet heavy expenses while receiving inadequate remuneration. Their former reputation as collecting depots for butter has suffered because they have delivered inferior produce. The vintners' societies have made no material progress in spite of the enhanced prices of wines. Progress has however been recorded by the co-operative societies for the sale of cattle, 50 new societies having been added to their number since the outbreak of war.

Part II: Insurance and Thrift

MISCELLANEOUS INFORMATION RELATING TO INSURANCE AND THRIFT IN VARIOUS COUNTRIES.

AUSTRALIA.

INSURANCE AGAINST MORTALITY AMONG LIVE STOCK IN VICTORIA — *Victorian Year-Book* 1916-17, Melbourne, 1918.

The government of Victoria publishes interesting data as to the various kinds of insurance practised in this State, but in some cases further and complementary figures would be welcome. Thus it would be useful to know, in the matter of insurance against mortality among live stock, how many animals are insured and what is the value of the risk covered. With this reserve, we reproduce figures shewing the receipts and expenditure from 1912 to 1916 of the companies which have assumed this risk:

Year	Premiums	Other receipts	Total	Expenditure		
				Damages paid	Other costs	Total
	£	£	£	£	£	£
1912	50,779	1,018	51,797	27,087	20,781	47,868
1913	36,061	885	36,946	20,379	16,064	36,443
1914	25,414	675	26,089	14,179	8,514	22,693
1915	18,078	70	18,148	14,703	4,841	19,544
1916	20,455	995	21,450	10,503	6,256	16,759

Except in 1915, when there was a deficit of £1,396, these companies made in each year a moderate profit which aggregated for the whole period of five years only £11,128. We should note however that from the sum of £145,430, which represents the total receipts, only £86,851 or 56.24 per cent. were subtracted to cover the sum of the damages paid.

FRANCE.

INSURANCE AGAINST HAIL, IN 1917 — *L'Argus*, Paris, 8 September 1918

The year 1917 may be taken to be the worst ever passed in France as regards insurance against hail: storms were as numerous as they were violent; the insurance companies lacked experts; and owing to the shortage of labour crops were exposed to the risk of hail longer than usual.

The following figures enable a comparison between 1916 and 1917 as regards the business done both by companies charging fixed premiums and by mutual companies.

	1916 —	1917 —
Number of insured persons .	198,316	196,938
Insured value	938,510,419 francs	977,210,121 francs
Premiums and subscriptions	13,519,365 »	16,036,121 »
Damages	9,850,359 »	13,672,950 »
Reserve funds	23,644,005 »	15,171,945 »

Damages which in 1916 had already increased by 3,538,913 francs increased in 1917 by a further 13,822,591 francs.

Almost all the companies suffered losses and it was necessary to borrow largely from reserves. Of the sum of these nearly a third was withdrawn.

The following table shews the business of each company and society in detail:

S. a. to B. 19

	No. of insured persons	Pr sub in		Damages and cost of settlements		Reserv end of
Stock companies						
L'Abeille	65,032	74,709,487	5,752,876	7,265,998	1,487,005	1,520,984
Ia Confiance	30,850	132,170,110	2,324,568	3,771,766	600,113	177,796
	95,882	406,879,897	8,077,441	11,037,761	2,087,118	1,697,780
Mutual societies.						
Ia Cérés	8,223	45,730,500	405,834	848,226	"	1,605,679
Société de Touloune	25,072	125,954,060	1,050,248	2,204,513	"	4,761,582
Seine-et-Marne	2,600	49,317,712	798,701	1,654,356	"	665,241
Aisne (1)	"	"	"	"	"	"
Étoile	7,980	79,801,400	904,202	1,909,616	"	2,650,000
Beaucronne Vexhoise	1,408	17,464,100	252,870	341,077	"	775,323
Seine-et-Oise	817	35,605,696	291,764	359,817	"	472,906
Garantie Agricole	507	17,197,300	179,657	332,797	"	920,057
Ruche (1)	"	"	"	"	"	"
Régionale du Nord (1)	"	"	"	"	"	"
Ia Grêle	6,121	15,791,446	221,102	89,852	"	616
Mutuelle Générale	7,452	24,489,533	349,359	219,682	"	"
Perme	23,288	101,084,843	2,313,350	3,356,457	2,023,731	1,621,758
Rurale (2)	17,588	57,890,634	1,191,540	1,315,791	178,389	(2)
	101,056	570,330,224	7,958,677	12,635,186	"	13,473,165
Summary.						
Stock companies	95,882	406,879,897	8,077,444	11,037,764	2,087,118	1,698,780
Mutual societies	101,056	570,330,224	7,958,677	12,635,186	"	13,473,165
	196,938	977,210,121	16,036,121	23,672,950	2,087,118	15,171,945

Part III: Credit

ITALY.

THE AGRICULTURAL CREDIT AFFORDED BY THE SAVINGS-BANK OF NAPLES IN 1917.

SOURCE:

BANCO [DI NAPOLI: [CASSA DI RISPARMIO. CREDITO AGRARIO. RELAZIONE SULL'ESERCIZIO 1917 (*Bank of Naples: Savings-Bank. Agricultural Credit. Report on the year 1917*).

The Savings-Bank of the Bank of Naples receives the means for affording agricultural credit from three different sources, namely: 1) deposits under the law of 7 July 1901, No. 334; 2) the funds of the provincial funds for agricultural credit which the Savings-Bank manages, under the law of 2 February 1911, No. 70; and 3) the funds directly advanced by the State in conformity with the numerous decrees which have lately been promulgated and which aim at intensifying cultivation, decrees which we have always noticed at the right time. Altogether in 1917 the sum of 30,983,679 liras was granted to the agriculturists of South Italy and Sardinia. The recently published report of the Bank of Naples, that ancient and powerful institution for affording credit which regulates and animates the economy of Southern Italy, contains interesting data as to the distribution of this sum.

The report has three parts. In the first and most important part there is a study of the results of affording agricultural credit, these results being shown in the form of abundant general and special data for each province. The second part, which concerns agricultural propaganda, contains a large number of practical observations. It reports the intense activity deployed by this bank for the creation of new agricultural loan funds, with a view to accustoming agriculturists to a larger use of chemical manures and agricultural machines which will increase agricultural production. Finally the third part of the report deals with doubtful interpretations of the law and rules: it is a rich collection of the jurisprudence which is growing up in this new and interesting sphere, that of the law as to agricultural credit, and it deserves careful study. This part ends with an alphabetical table of the doubtful points decided and the problems solved during the sixteen years of the bank's activity. There are also at the end of the report numerous statistical tables as to the transactions in agricultural credit effected by the bank's Savings-Bank.

§ 1. THE DEVELOPMENT OF INSTITUTIONS FOR THE DISTRIBUTION OF AGRICULTURAL CREDIT.

According to the conception which has in Italy informed district legislation on agricultural credit, it is a general rule that such credit is granted to agriculturists not directly but through the medium of local institutions, especially those of them which are co-operative in form, like the agricultural and rural funds, the agricultural consortia, the popular banks, etc., all of which are called intermediary institutions because they exercise this function. An exception is made only if the local institution be inactive, do not dispose of credit commensurate with local needs, cannot be counted upon as able to exercise this function, or do not exist. The number of these institutions has increased steadily. There were 2,179 of them on 31 December 1916, and on 31 December 1917, in spite of the difficulties belonging to the time, 2,225. The number of them classified as good, which, therefore, can be relied upon to afford credit in this special form, has also increased, having passed from 1,203 to 1,213. This increase of ten between 1916 and 1917 is almost entirely due to the formation of new agricultural funds, or co-operative loan societies nominally collective, most of which have by-laws conforming to a model largely distributed by the aforesaid Savings-Banks since 1909. These 1,213 institutions qualified as good are classed as follows according to their kind and according to whether or not they are accredited for the ordinary discount of the Bank of Naples:

	Societies or institutions		Totals
	Accredited at the bank for ordinary discount	Not accredited at the bank	
Agricultural consortia,	4	120	124
" and rural funds	—	495	495
" loan funds	—	120	120
<i>Monti frumentari</i>	—	8	8
Agricultural credit societies	—	8	8
<i>Monti frumentari</i> and <i>nummari</i> of Sardinia . .	—	255	255
Mutual aid societies,	—	7	7
Popular banks,	130	38	168
Savings-banks	4	11	15
Autonomous provincial funds of agricultural credit	—	6	6
Totals . . .	112	1101	1213

It is seen that the institutions vary in type and constitution. The nominally collective societies prevail. In the first year, 1902, there were hardly ten of them, but there are now as many as 490: the increase of 480 is very specially due to the continuous and active propaganda work of the Savings-Bank. Societies having this form of collective and unlimited liability are now found in eighteen provinces of the south and Sardinia. By districts and provinces they are distributed as follows: Abruzzi and Molise 100 — namely, Aquila 53, Teramo 16, Campobasso 16, Chieti 54; Campania 163 — namely Salerno 54, Caserta 45, Avellino 34, Benevento 19, Naples 11; Apulia 34 — namely Lecce 18, Bari 9, Foggia 7; Basilicata, Potenza 9; Calabria 27 — namely Reggio 15, Catanzaro 8, Cosenza 4; Sardinia 157 — namely Cagliari 129 and Sassari 28. The greatest number — 129 — is therefore found in Cagliari; then come Salerno with 54, Aquila with 53, Caserta with 45 and Avellino with 34.

As compared with the first year, 1902, the consortia have much increased, having passed from 38 to 124.

The institutions classed as good are distributed by provinces as follows:

Province	Agricultural Consortia	Agricultural & Rural Funds	Agricultural loan funds	Monti frumentari	Societies of Agricultural Credit	Monti frumentari of Sardinia	Mutual Aid Societies	Popular Banks	Savings Banks	Autonomous Provincial Funds of Agricultural Credit	Totals
Aquila	1	54	—	—	2	—	—	6	—	—	63
Teramo	3	16	32	—	—	—	—	9	4	—	64
Chieti	2	15	5	3	1	—	—	4	2	—	32
Campobasso . . .	3	16	5	—	—	—	2	2	—	—	28
Bari	7	9	—	—	—	—	—	9	5	—	30
Foggia	11	7	25	—	—	—	—	16	1	—	60
Lecce	17	18	8	4	—	—	—	10	—	—	57
Avellino	5	34	3	—	—	—	—	4	—	—	44
Salerno	3	54	20	—	—	—	—	3	—	—	80
Naples	2	11	—	—	—	—	—	6	—	—	16
Benevento	10	20	—	—	3	—	—	7	—	—	19
Caserta	23	46	10	—	—	—	—	26	1	—	40
Potenza	7	10	—	—	—	—	—	11	2	1	106
Cosenza	6	4	1	—	—	—	1	3	—	1	31
Catanzaro	10	8	11	1	—	—	2	8	—	1	41
Reggio	2	15	—	—	—	—	1	17	—	1	36
Cagliari	6	129	—	—	—	193	—	—	—	1	329
Sassari	8	30	—	—	2	95	1	—	—	1	137
Totals	124	496	120	8	8	288	7	141	15	6	1213

Classification of Credits opened on 31 December 1917: amounts in liras.

Provinces	Agricultural Consortia		Agricultural & Rural Funds		Loan Funds		Societies of Agricultural Credit		Monti frumentari of Sardinia		Mutual Aid Societies		Popular Banks		Savings Banks		Provincial Autonomous Credit Funds		Totals	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Aquila	—	—	44	1,601,000	—	—	—	—	—	—	—	—	5	205,000	—	—	—	—	49	1,806,000
Teramo	3	1,150,000	15	800,000	32	130,000	—	—	—	—	—	—	9	224,000	4	101,000	—	—	65	2,407,000
Chieti	2	78,000	13	320,000	3	23,000	—	—	—	—	—	—	4	46,000	2	180,000	—	—	24	647,000
Campobasso	3	250,000	15	590,000	4	50,000	—	—	—	1	75,000	—	2	170,000	—	360,000	—	—	25	1,135,000
Bari	6	771,000	6	800,000	—	—	—	—	—	—	—	—	8	1,000,000	4	360,000	—	—	24	2,931,000
Foggia	10	1,320,000	7	160,000	22	428,000	—	—	—	—	—	—	15	1,650,000	1	20,000	—	—	35	3,378,000
Lecce	10	870,000	10	208,000	3	95,000	—	—	—	—	—	—	10	255,000	—	—	—	—	33	1,428,000
Avellino	3	108,000	25	658,000	3	12,000	—	—	—	—	—	—	4	45,000	—	—	—	—	35	823,000
Salerno	2	100,000	46	2,350,000	—	—	—	—	—	—	—	—	1	70,000	—	—	—	—	49	2,520,000
Naples	2	95,000	5	45,000	—	—	—	—	—	—	—	—	6	170,000	—	—	—	—	23	310,000
Benevento	10	297,000	19	348,000	—	—	2	40,000	—	—	—	—	5	120,000	—	—	—	—	36	805,000
Caserta	13	853,000	39	962,000	1	3,000	—	—	—	—	—	—	22	334,000	—	—	—	—	75	2,152,000
Potenza	—	—	8	185,000	—	—	—	—	—	—	—	—	11	75,000	2	8,000	1	1,000,000	22	1,268,000
Cosenza	5	168,000	1	20,000	—	—	—	—	—	—	—	—	3	45,000	—	—	1	150,000	10	383,000
Catanzaro	9	345,500	5	62,000	11	115,100	—	—	—	1	1,000	—	8	694,000	—	—	1	40,000	35	1,257,600
Reggio	2	320,000	5	118,000	—	—	—	—	—	1	2,000	—	16	705,000	—	—	1	100,000	25	1,245,000
Cagliari	5	135,000	34	576,000	—	—	—	—	35	93,000	—	—	—	—	—	—	1	500,000	71	1,204,000
Sassari	5	330,000	13	400,000	—	—	3	185,000	67	211,000	—	—	—	—	—	—	1	500,000	89	1,626,000
Totals	90	7,190,500	320	10,293,000	79	858,100	5	225,000	100	304,000	3	78,000	129	5,808,000	13	660,000	6	2,090,000	735	27,515,600

The institutions entered as having had agricultural credits opened to them at the Bank of Naples numbered 735 on 31 December 1917 when a sum of 27,515,600 liras had been accredited to them. Of these credits 25,044,500 liras were accorded on the application of the institutions interested and 2,471,000 liras as by their right. It should be noted that at the end of the first year the accredited institutions numbered 119 and their credits amounted to 3,238,100 liras. The 735 institutions of which we have spoken are distributed by provinces and by the kinds of funds they command as shown in the table on page 734.

As this table shows, it is the agricultural and rural funds which are the most numerous. Next to them come the popular banks and the agricultural consortia. As regards the importance of the sums credited to these societies, the agricultural and rural funds come first and then the consortia and the popular banks. These last were in this respect first overtaken and then surpassed by associations of a purely agricultural character, the change taking place from 1914 onwards.

§ 2. TRANSACTIONS WITH THE FUNDS OF THE SAVINGS-BANK AND THOSE OF THE PROVINCIAL FUNDS.

In 1917, as in 1916, transactions were of two kinds, dealing with *ordinary* and with *extraordinary agricultural credit*, respectively. Operations of ordinary agricultural credit are made with the deposits of the Savings-Bank and the capitals of the provincial funds in accordance with the terms of the laws of 7 July 1901, No. 334, and 2 February 1911, No. 70. Operations of extraordinary credit are advances made with the funds granted by the Treasury in accordance with the Lieutenant-General's decrees of 27 July 1916, No. 913, and 6 May 1917, No. 737, for the cultivation of grain crops in districts which have suffered by field-mice in the provinces of Foggia, Bari and Campobasso; with the Lieutenant-General's decrees of 10 May and 28 June 1917, Nos. 788 and 1035, and with the ministerial decrees of 30 June and 24 August for the development of the growing of foodstuffs in provinces in which the Savings-Bank administers the provincial funds. We will treat these two classes of the employment of capital separately, beginning with ordinary credit.

During 1917 the Savings-Bank of the *Banco di Napoli* effected operations of ordinary agricultural farming credit for 10,728,575.70 liras, of which sum 2,439,154.44 liras were derived from its own funds and 8,289,421.26 liras from the provincial funds. These figures show, when compared with those for the previous year, a diminution of 1,206,067.96 liras due to the fact that applications for discount from a certain number of the branches had lessened. Generally speaking, this must have been due to two facts. First, the sale of agricultural produce at really profitable prices would place agriculturists in somewhat better conditions than those they enjoyed previously; and secondly, as we shall presently see, they have been able to receive funds of this kind from the State. Alto-

gether the intermediary institutions rediscounted bills for 5,497,363.71 liras ; 200,734.50 liras were lent to agriculturists directly ; and 5,030,477.49 liras were discounted by the intermediary institutions. •

In spite of the difficulties of the financial market, the rate of interest last year remained unchanged at 3 ½ per cent. for rediscount and discount with the intermediary institutions, and at 4 per cent. for transactions with agriculturists directly. The intermediary institutions applied in their turn for the grant of loans at rates of interest which varied from 4 to 6 per cent., but were especially 5 and 5 ⅓ per cent.

Rediscounts and direct loans were distributed as follows in accordance with their object :

1) *Loans having a legal privilege :*

	Number	Amount liras
for the harvest	72	43,879 50
» cultivation	4,389	1,905,408.27
» seed	1,413	456,064.16
» manures	1,808	444,066.76
» fertilizers	2,435	552,985 68
» food for <i>coloni</i>	108	25,871.23
» food for labourers	—	—
» various objects.	1,602	813,805.54
Totals . . .	11,827	4,242,081.14

2) *Loans not secured by a legal privilege :*

for large live stock	1,504	1,161,294.48
» small » »	252	68,465.00
» machines	134	160,800.89
» agricultural implements . . .	92	34,172 70
» stock other than live stock. .	82	29,440.00
» various objects	4	1,844.00
Totals . . .	2,068	1,456,017.07

Of these loans 8,974 for 3,838,312.77 liras were granted to landowners developing their properties ; 4,246 for 1,627,421.44 liras to tenant farmers ; 386 for 87,552.34 to holders of long leases ; and 289 for 144,811.66 liras to *métayers* or *coloni* receiving a share of profits. Further 4,976 loans for 2,098,481.39 liras were distributed by means of 52 agricultural consortia ; and 7,764 loans for 2,749,984.32 liras by 176 agricultural and rural funds.

On 31 December 1917 there were 46 of these 52 agricultural consortia or limited liability co-operative societies grouping 20,143 members and having a subscribed capital of 1,272,414.40 liras of which 1,083,613.98 liras were paid up. They had also a reserve fund of 842,986.63 liras and a share capital and reserve fund amounting to 2,115,401.03 liras. Of the 176 agricultural and rural funds 139 at this date comprised 22,135 members, and had a capital of 85,958.70 liras, a reserve fund of 203,342.31 liras, and various debit deposits amounting to 948,437.56 liras.

As to the composition of the credit, it is enough to note that of 13,895 loans 2,638 were of sums less than 100 liras, 7,783 of sums between 100 and 500 liras, and 2,862 of sums between 500 and 1000 liras. That is to say that 95 per cent. of the total number of the loans and 77 per cent. of their total sum are accounted for by transactions covering less than 1000 liras.

Operations of direct discount by intermediary institutions were as follows : 266 for 3,349,612.49 liras resulting from collective purchases of articles useful to agriculture ; 20 for 788,568.15 liras intended for collective sales of agricultural produce ; 311 for 893,296.85 liras to supplement these intermediary institutions' own insufficient resources. Almost all these discounts emanated from agricultural consortia and agricultural and rural funds.

Finally, the following provinces received, as follows, part of the agricultural credit granted during 1917 by the Savings-Bank of the Bank of Naples :

Share of credit assigned to each province in 1917.

Provinces	Amount liras	Provinces	Amount liras
Salerno	1,997,051.86	Benevento	397,312.75
Caserta	1,393,315.47	Sassari	354,985.00
Bari	1,019,230.95	Cagliari	269,606.00
Teramo	942,404.53	Naples	217,451.10
Aquila	842,200.88	Catanzaro	188,603.33
Foggia	726,059.35	Chieti	161,613.74
Campobasso	701,870.00	Cosenza	35,164.20
Reggio di Calabria	505,285.95	Potenza	5,000.00
Lecce	504,737.90		
Avellino	461,682.69	Total :	10,728,575.70

During the sixteen years for which it has afforded agricultural credit the Savings-Bank of the Bank of Naples has distributed 113,534,159.04 liras to the provinces of South Italy and Sardinia, as follows :

	With the Savings-Bank's funds	With the funds of the provincial funds	Totals
1902 L.	143,891.23	L. —	L. 143,891.23
1903 »	855,163.20	» —	» 855,163.20
1904 »	1,360,562.97	» —	» 1,360,562.97
1905 »	1,932,231.90	» —	» 1,932,231.90
1906 »	2,552,458.45	» —	» 2,552,458.45
1907 »	3,870,297.81	» —	» 3,870,297.81
1908 »	4,823,440.35	» —	» 4,823,440.35
1909 »	5,390,203.04	» —	» 5,390,203.04
1910 »	7,830,400.59	» —	» 7,830,400.59
1911 »	7,465,863.24	» 2,188,349.88	» 9,654,213.12
1912 »	3,626,018.56	» 5,727,814.88	» 9,353,833.44
1913 »	5,857,385.48	» 7,176,955.14	» 13,034,340.62
1914 »	3,941,819.82	» 9,992,339.58	» 13,934,159.40
1915 »	3,960,215.04	» 12,175,528.52	» 16,135,743.56
1916 »	2,602,861.23	» 9,331,782.43	» 11,934,643.66
1917 »	2,439,154.44	» 8,289,421.26	» 10,728,575.70
	L. 58,651,967.35	L. 54,882,191.69	L. 113,534,159.04

The sum was distributed as follows among the various provinces :

1. Foggia . . L.	29,256,435.28	10. Campobasso L.	3,593,537.58
2. Bari . . . »	11,302,542.39	11. Catanzaro. »	3,044,164.71
3. Caserta . . »	11,082,370.82	12. Benevento »	2,927,105.96
4. Aquila . . . »	10,355,038.77	13. Cagliari. . »	2,347,687.38
5. Lecce . . . »	8,050,913.19	14. Naples . . »	1,801,782.14
6. Salerno . . »	6,408,585.52	15. Avellino . »	1,768,674.82
7. Reggio Cal. »	6,265,741.42	16. Potenza . »	1,527,933.05
8. Teramo . . »	5,869,607.76	17. Chieti . . »	1,393,659.97
9. Sassari . . »	5,509,091.79	18. Cosenza . »	1,029,282.49
		Totals . . . L.	113,534,159.04

The province of Foggia is seen to have received the largest amount, namely 25.77 per cent. of the total sum ; while the smallest amount, only 0.91 per cent. of this total, went to the province of Cosenza.

In the sixteen years of business the general movement of credit was distributed among operations of different sorts as follows : rediscounts at intermediary institutions 82,858,197.87 liras ; direct discounts at these institutions 27,735,162.46 liras ; direct loans to agriculturists 2,940,798.71 liras. The larger part of the credit has therefore been distributed by means of local institutions exactly as the law desires. Of these institutions the agricultural consortia took the lead, obtaining credit in the largest measure : in rediscounts and discounts the credit granted to them amounted to 59,882,000 liras. Immediately after them came the agricultural and local funds which obtained credit for 32,767,000 liras then the popular banks with credit for 13,073,000 liras. The agricultural and rural funds, which actually and in obedience to their by-laws are active only in the sphere of agricultural economy, occupy therefore a notable place, ranking second among intermediary institutions, in that they absorbed 28.26 while the agricultural consortia absorbed 52.74 per cent of the total credit.

§ 3. TRANSACTIONS EFFECTED WITH STATE FUNDS.

We will now treat the matter of the business effected with funds advanced by the State directly, which we will name extraordinary operations of agricultural credit, thus distinguishing it from the transactions already examined. It comprises loans of two kinds : 1) loans for grain-growing in districts which suffered from field-mice in the provinces of Foggia, Bari and Campobasso (agricultural year 1916-1917) ; 2) loans for developing the growing of foodstuffs (agricultural year 1917-1918).

In conformity with the rules in the decree of 27 July 1916, No. 913, loans for grain-growing must be granted in three stages : *first loan* for costs of first ploughing ; *second loan* for costs of sowing and of live stock ; *third loan* for the spring work of weeding, dressing and harrowing. Up to 31 December 1916 the State had voted for these loans 20,000,000 liras, of which 2,250,000 liras were assigned to the provincial fund of agricultural credit for Basilicata. For the first and second loans 13,728,927.24 liras distributed in 21,486 loans were granted in the three provinces of Foggia, Bari and Campobasso. At the beginning of last year 609 loans of this kind for 387,947.91 liras were made current, namely 131 for 141,351.20 liras to the province of Foggia, 336 for 186,729.01 liras to the province of Bari, and 14 for 86,867.70 liras to the province of Campobasso. The loans of the two categories created by the aforementioned decree of 27 July amounted, therefore, to 14,116,875.15 liras and numbered 22,095.

When loans had thus been assigned to autumn ploughing, manures and seeds, attention was turned in the first months of 1917 to third loans for spring work, and these loans numbered 4,367 and amounted to 2,301,659.58 liras. However another decree, dated 6 May 1917, No. 737, voted 8,000,000 liras, of which 700,000 liras were assigned to the provincial fund of Basilicata to enable loans to cover the expenses of the harvest.

Of these loans of the fourth category 4,400 amounting to 5,149,603.26 liras were granted altogether.

To resume : loans for grain-growing in 1916-1917 in the three provinces mentioned amounted to 21,568,137.99 liras, of which sum 8,038,777.49 liras were distributed by means of intermediary institutions and 13,529,360.50 liras to agriculturists directly, 13,729,927.24 liras being advanced in 1916 and 7,838,210.75 liras in 1917. Direct loans represent 62.72 per cent. of the total sum of loans for the whole agricultural year 1916-1917 ; and rediscounts, that is loans granted by means of the intermediary institutions, represent 37.28 per cent. of the loans.

As regards the circumstances of borrowers, of the total sum of loans, 21,568,137.99 liras, a) 14,563,895.50 liras or 67.53 per cent. were granted to tenants and sub-tenants ; b) 6,519,476.03 liras or 30.23 per cent. to land-owners developing their land ; c) 287,750.31 or 1.33 per cent. to holders of long leases ; d) 197,016.15 or 0.91 per cent. to *métayers* and *coloni* receiving a share of profits.

In accordance with Article 5 of the decree of 27 July 1916, No. 913, a reduction of 2 per cent. and 1 $\frac{1}{2}$ per cent. on the rate of interest established for the business of ordinary agricultural credit was applied to direct loans amounting to 13,529,360.50 liras and loans in the form of rediscount amounting to 8,038,777.49 liras, the rate charged thus becoming 2 per cent. The intermediary institutions in their turn, in so far as our information goes, charged borrowers a rate which did not exceed 4 $\frac{1}{2}$ per cent.

We will now speak of loans made to develop the cultivation of food-stuffs. For the growing of wheat and other cereals, vegetables and edible roots in all provinces decrees of the lieutenant general of 28 June (No. 1035) and 11 November (No. 1831) of the preceding year voted 30,000,000 liras. This sum was afterwards raised to 65,000,000 liras by lieutenant general's decrees of 14 April 1918 (No. 566), 14 July 1918 (No. 1100) and 15 September 1918 (No. 1444).

Of the 30,000,000 liras 21,000,000 liras were assigned to the Savings-Bank of the Bank of Naples for the eleven provincial funds of agricultural credit it administers. By the terms of the ministerial decrees of 30 June and 24 August the funds thus voted by the State were to be used for making loans to agriculturists to enable the preparation of land for sowing. These loans might reach a maximum of 70, afterwards raised to 100 liras a hectare. When the growing of wheat or other cereals was in question seed could also be granted on credit, in a quantity sufficient only to sow the largest area under cultivation in the farming year 1916-1917. Later it was thought opportune to modify this limitation in favour of persons cultivating land for the first time, and persons whom State funds had enabled to prepare land and who were unable to procure seed with their own resources.

The loans made for this object up to 31 December 1917 numbered altogether 10,185 and amounted to 12,416,892.72 liras, distributed by intermediary institutions by rediscounting to the extent of 8,816,394.03 liras or 71 per cent., and to borrowers directly to the extent of 3,600,498.69 liras or 29 per cent. The sum was distributed among provinces as

follows : Foggia, 9,053,461.73 liras ; Campobasso 1,562,485.40 liras ; Bari 1,542,146.14 liras ; Salerno 127,201.50 liras ; Lecce 97,868.90 liras ; Avelino 14,500 liras ; Caserta 11,320 liras ; Benevento 7,909.50 liras. Altogether 111 communes, as against 927 constituting the eight provinces mentioned, made use of the funds voted by the State for growing foodstuffs.

For the work of preparing the land for sowing loans amounting to 9,977,172.07 liras were granted at the average rate of 81.67 liras a hectare; and for seed loans amounting to 2,439,720.65 liras at the average rate of 88.92 liras a hectare.

On loans made to agriculturists directly or direct loans, the Savings-Bank of the Bank charged the respective provincial funds the rate of 4 per cent. On rediscounts at the intermediary institutions the rate was 3.50 per cent. on loans for the preparation of the land and 4 per cent. on loans for seed. The intermediary institutions charged the borrowing agriculturists 5 per cent.

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES.

AUSTRALIA

CHARGES BURDENING LAND, LIVE STOCK, WOOL, AND GRAIN — *Victorian Year-Book*, 1916-17. Melbourne.

The first of the tables we reproduce below shows the mortgages placed on land and the releases from mortgages from 1912 to 1916. The table must however be read with some reservations. The amount secured by mortgage is in a few cases not stated, and it is considered that the total of the amounts stated below therefore falls short of the real total by about 5 per cent. Moreover unregistered or equitable mortgages to financial institutions and to individuals, of which there is no public record, are left out of account, as are mortgages to building societies of land held under the Transfer of Land Act which are registered as absolute transfers. The releases included in the table are those registered as such; but mortgages are sometimes extinguished without any registered release, as when a mortgager transfers the mortgaged land to the mortgagee or sells it, or when a mortgage is foreclosed. With these reservations we notice that from 1912 to 1916 the business both of mortgaging land and of releasing land from mortgages steadily lessened, with the result that the total mortgage debt was considerably diminished.

Mortgages and Releases of Land from 1912 to 1916.

Transactions registered	1912	1913	1914	1915	1916
Mortgages:					
Number.	14,798	14,901	14,731	13,934	11,445
Amount secured (£) . . .	12,713,310	10,649,972	9,869,098	9,476,974	8,015,066
Releases:					
Number.	10,256	9,506	10,277	9,051	8,670
Amount secured (£) . . .	8,030,648	6,891,315	8,103,506	6,908,671	6,538,141

The number of mortgages of stock and liens on wool and on crops registered in the same period and the amounts they secure appear in the following table. Releases are not shown because there is no obligation to register them and very few mortgagers take the precaution of procuring a registered release. After twelve months mortgages and liens which have

been released are removed from the register. This gap in the figures does not however prevent the conclusion that, unlike mortgages on land, these mortgages and liens on live stock, wool and crops have made an ascending progress, interrupted only in 1914 when the war made conditions uncertain. The war's prolongation did not end the rise. The total amount of these burdens passed from £351,746 in 1914 to £508,555 in 1915 and £521,745 in 1916, that is they were more by £168,825 in 1916 than 1912. This increase really affects only live stock and crops, for liens on wool, which in any case were always comparatively unimportant, fell constantly.

Mortgages and Liens on Live Stock, Wool and Crops from 1912 to 1916.

		1912	1913	1914	1915	1916
Mortgages on live stock	Number	854	935	850	605	862
	Amount secured (£)	157,560	221,872	157,381	129,753	202,872
Liens on wool. . .	Number	133	120	106	84	74
	Amount secured (£)	57,599	47,398	47,541	46,118	42,483
Liens on crops . . .	Number	612	892	877	7,674	4,628
	Amount secured (£)	137,761	176,875	146,824	332,684	276,390
Total number of these mortgages and liens.		1,599	1,947	1,833	8,373	5,564
Total amount they secured (£)		352,920	446,145	351,746	508,555	521,745

FRANCE.

ADVANCES FOR BRINGING ABANDONED LANDS UNDER CULTIVATION. — (*Loi du 14 mai 1918 relative à la mise en culture des terres abandonnées, décret du 12 juillet 1918 portant règlement d'administration publique pour l'application de la loi du 4 mai 1918 et instructions aux préfets relativement à l'application de la loi et du décret*).

A law of 4 May 1918 has solved the problem of bringing abandoned lands under cultivation, distinguishing between mere fields and abandoned farms. If a farmer is unable to cultivate certain fields of his farm the Committee of Agricultural Action in his department intervenes to cause these fields to be let to neighbouring farmers. In default of an amicable agreement to this effect the mayor, or failing him the prefect, may, at the request of the aforesaid committee, cause the lands to be requisitioned on certain terms and grant them to the farmers he chooses to be farmed. Such grant may not however be for a longer time than that necessary for the production of one year's harvest.

In the liberated districts the prefects may enter in the State's name into contracts for bringing under cultivation lands abandoned or uncultivated by farmers, whether absent or present.

As regards abandoned farms, the Committee of Agricultural Action must in each department make a list of all that exist, shewing what area on them can be cultivated, what crops can be grown on them, what buildings and stock they possess, what live and other stock and capital are needed before farming can be resumed on them, and what are the intentions with regard to them, and the resources, of their habitual farmer or their owner. The committee enters into relations with the habitual farmer in order to persuade him to resume farming, sending him a registered and receipted letter. If no satisfactory answer to this letter be received within fifteen days of its despatch, the committee seeks to co-operate with the owner in finding means again to bring the land under cultivation, sending him a registered and receipted letter. If the owner do not consent, within fifteen days of the despatch of this letter, to assume possession of the farm or to find a farmer for it, the prefect has the right to cede it, in agreement with the departmental and after consultation with the communal Committee of Agricultural Action, to one or more farmers of his choice or to farming syndicates or co-operative societies, on terms which he fixes. The duration of such lease granted without the habitual farmers' consent either by the prefect or by the owner cannot exceed the period necessary for the production of one year's harvest.

Advances repayable without interest may be granted to prefects and chairmen of departmental committees by the Minister of Agriculture up to the total sum of 100,000,000 francs, for the purpose of facilitating the restoration to tillage of abandoned fields and farms. These advances may be used by the departmental committees, after consultation with the communal committees, to pay for bought or hired animals, material, seed or manures, or to supply the habitual farmers or their supersessors with working capital with which to realize the value of the abandoned fields or farms.

Farmers and agricultural associations desirous of an advance must apply to the chairman of the departmental Committee of Agricultural Action. In their application they must state what are the nature of their title to the land they farm and the circumstances in which they obtained it, the area they wish to cultivate and the crops they wish to sow, and they must give estimates of the expense which will have to be incurred in order to provide labour, material and commodities, and estimates of their own resources, and of the advance they require. They must specify the form of such advance and the mode of its delivery.

If the applicant cultivate other lands than those for which he asks for an advance he must state what is their area and what crops they bear.

The chairman passes the applications. The committee decides on them fixing the terms of loans, the dates of payment, and the conditions on which, if payments be graduated, additional payments may be obtained.

If there be not a sufficient credit to allow all applications to be accepted, a preference must be given to such of them as come from agriculturists in the invaded departments.

When an advance has been accorded by the departmental committee,

the prefect who is the committee's chairman passes the deed of loan which not only establishes the general and particular conditions of the loan but also has a special clause which secures its repayment, to the full extent of its value and on the terms authorized. The security is constituted by all or part of the agricultural material, the harvests and any sums the borrower may receive as the result of his compulsory insurance of his property.

If an inventory of a farm have not been made, when a farmer took possession of it, by a party whose own interest in this farmer's tenure is technically opposed to his, the prefect names in the deed of loan the valuer who will, as the administration's representative, make such an inventory, thus showing the state of the farm which is to enable the liquidation of the loan.

The departmental committee may decide to make advances in kind, and may acquire, with the credits granted by the State and subject to conditions fixed by the Minister of Agriculture and Victualling, the material and products necessary to bring abandoned fields or farms under cultivation.

As regards all the material and products bought for this purpose, the books are kept by a special accountant nominated and directed by the prefect. He is responsible for transactions and takes charge both of goods bought by quantity and of valuable objects. For these he gives receipts having counterfoils, which are added to other papers intended to prove the right of suppliers to have orders for payment issued to them. Goods and material are not remitted to those who receive advances in kind except on presentation of the prefect's authorization, and these authorizations and the borrowers' receipts are produced by the accountant to corroborate the entries in his books.

Advances made to farmers, whether in cash or in kind, may not exceed the total maximum sum of 250 francs per hectare of land admitting of cultivation in the case of abandoned fields, and 1,000 francs per hectare of such land in the case of abandoned farms.

These maxima are advanced to 500 francs and 2,000 francs, respectively, if the borrowers farm land in the invaded districts.

The advances are made for terms which may not extend beyond the 31st of December of the year for the agricultural season of which they are advanced.

Persons receiving advances in kind must repay in cash the price of the goods they receive and any appurtenant costs incurred for transport or otherwise.

Advances may be renewed, but must be reduced at least by a fifth for every agricultural season for which they are renewed in the case of an ordinary farmer and by a tenth in the case of a farmer from the invaded districts.

The departmental Committee of Agricultural Action nominates one or more delegates who supervise and inspect the manner in which persons who receive advances farm the lands. The delegates may be members of the committee or officials of the department of agriculture or qualified agricul-

turists, and they make reports to the committee, proposing measures which seem to them necessary.

These delegated inspectors may receive compensation in a measure determined by rules drawn up by the Ministries of Agriculture and Victualling and of Finances in co-operation, the sums thus paid being taken from the credits granted to the Ministry of Agriculture for the general costs of the service.

If the delegated inspector think that the chances of the repayment of the advance are compromised by the fault or the misfortune of the farmer, he will send urgent notice of the fact to the committee, which will by registered letter apprise the farmer of the complaints made against him and fix a date on which he will be expected to furnish, himself or through a representative, all explanations which seem to him relevant. After this date the committee, having taken note of any written explanations which may have been produced, decides in case of necessity to take steps to procure an immediate repayment of the advance. If such a decision be taken the farmer concerned is notified by the administration, and the liquidation takes the form and is subject to the conditions which the departmental committee determines.

As regards advances to farmers in the invaded districts, if they declare that they wish, in order to reconstitute their original farms, to retain all or part of the material or stock they acquire by means of the advances, an inventory of such goods is taken in the interests of the party technically in opposition to these farmers. The value fixed for the material and stock in question, which must not exceed its actual purchase price, is covered by the compensation due for losses caused by the war, to the full extent of the sum of such compensation.

Part IV: Agricultural Economy in General

NEW ZEALAND.

LAND TENURE, AND OCCUPATION AND OWNERSHIP OF LAND IN NEW ZEALAND.

OFFICIAL SOURCE:

THE NEW ZEALAND OFFICIAL YEAR-BOOK, 1917. Wellington, New Zealand, 1918.

§ 1. LAND TENURE.

The territory of New Zealand includes land belonging to four categories :

- a) The crown lands ;
- b) The native lands ;
- c) The lands which were already in private ownership in 1870 and the titles to which have not been modified so as to bring them under the Land Transfer Act, 1870.

d) The lands subject to the Land Transfer Act, 1870, in other words all lands alienated from the crown since 1870, all lands vested by any order under the Native Land Acts in any person in freehold tenure, all lands vested in any person in fee simple by virtue of any Act of the General Assembly, and all lands brought under the Act on the application of its proprietors after the investigation and acceptance of the title to it by the Land Transfer Department.

While the area in categories b) and c) tends to diminish that in category d) tends to increase, as does to some extent that in category a) by the conversion of native into crown lands.

A. *The Crown Lands.*

Administration. — The crown lands are administered, under the Land Act, 1908, by the Minister of Lands at Wellington, whose executive officer, the Under-Secretary of Lands, is the permanent head of the Department of Lands and Survey.

For the local administration of crown lands, New Zealand is divided into the ten land districts of Auckland, Taranaki, Hawke's Bay, Wellington, Nelson, Marlborough, Westland, Canterbury, Otago and Southland.

In each district there is a principal land office and in some of the larger districts there are also one or more local land offices. A Commissioner of Crown Lands is the executive officer of each district and has large discretionary powers under the Act of 1908. He deals with trespass and intrusion, expelling intruding persons and prosecuting the owners of trespassing cattle; he recovers fines imposed as penalties, ascertains the boundaries of crown lands, recovers rents and other moneys, deals with determinable contracts, prosecutes and defends suits, and takes other necessary action. He is Conservator of State Forests within his district.

He is moreover chairman of the Land Board of his district, which has besides himself four members, of whom three are nominated by the Governor-General and one is elected by the crown tenants of the district. This Board transacts all business concerned with the sale, letting, disposal and occupation of crown lands, and with the management and control of the public lands it holds. It is the sole judge of the fulfilment of conditions in leases and licenses and can declare them forfeit. All its meetings are, within certain limitations, open to the press and the public.

Classification. — The crown lands are divided into the following classes:

1) Town and village lands of which the respective minimum selling prices are £20 and £3 an acre. Such lands are sold by auction or are leased for ten or thirty-three years at a rent equal to 5 per cent. of their value.

2) Suburban lands of which the minimum selling price is £2 an acre and which are similarly sold by auction or leased.

3) Rural lands which may be sold or leased by auction or when application is made for them. They are divided into: *a*) first class lands of which the minimum selling price is £1 an acre; *b*) second class lands of which such price is 10s. an acre; and *c*) third class lands of which it is 2s. 6d. an acre. No section of rural land sold as one property, either by auction or when application is made for it, may have an area exceeding 666 acres if it be first class, 2,000 acres if it be second class, and 5,000 acres if it be third class land.

4) Small grazing runs having a maximum area of 20,000 acres of which the minimum rent is 10s. an acre.

5) Pastoral runs, comprising: *a*) pastoral lands suitable for pasture only and not admitting of profitable employment except in lots on which 5,000 sheep can graze; and *b*) tracts of pastoral agricultural land, not less than 5,000 acres in area.

Acquisition. — These classes of land may be selected and occupied as follows:

Land of classes 1) and 2) may be: *a*) bought for cash by public auction; *b*) acquired on lease for a term of no more than ten years; or *c*) acquired on a renewable lease of thirty-three years.

Land of class 3) may be *a*) bought for cash upon application; *b*) occupied with a right of purchase for twenty-five years, the annual rent payable being equal to 5 per cent. of the cash price of the land; or *c*) acquired on a renewable lease of 66 years, the annual rent payable being equal to 4 per cent. of the value of the land.

Lands in village settlements may be occupied on the same conditions ; improved farm settlements may be acquired on special terms, by a license to occupy with right to purchase or by a renewable lease ; rural land in special settlements may be acquired on a renewable sixty-six years' lease and under special regulations ; and improved rural and pastoral land for settlement estates on a renewable thirty-three years' lease with a limited right to acquire the freehold.

Grazing runs belonging to class 4) may be acquired on a renewable twenty-one years' lease, and pastoral lands of class 5) by pastoral license for terms up to twenty-one years.

Within mining districts land may, under special regulations, be acquired on pastoral licenses and on occupying leases. A miscellaneous category includes lands temporarily occupied for periods up to five years, lands sold or occupied for special purposes and outlying land.

Those who have acquired on the terms stated the right to occupy lands of class 3) are obliged to effect certain improvements, and on many crown leaseholds the residence of the lessees for certain periods is compulsory. In many cases rebate of rent is granted if the half-yearly instalment of rent be paid within thirty days of the time at which it becomes due. Applications for the mortgage, transfer or sublease of a crown leasehold have in most cases to be approved by the Land Board of the district in which the leasehold in question is situated.

Applications are received for an area of unsurveyed land no greater than the maximum area of rural sections in the adjacent surveyed lands. Such applications must conform to a general scheme approved by the Land Board and, unless otherwise approved, must be in every case for land extending to the back lines. Approval of all applications is subject to the crown's right to make surveys for public purposes and lay out roads. The cost of a survey must be deposited with the application unless the Minister of Lands, on the recommendation of the Land Board, dispense with such deposit.

Reserved Lands. — The following reserved lands are administered by the Land Boards :

1) National endowments which may be granted on renewable leases, small grazing runs' leases or pastoral licenses. The freehold of these lands cannot be acquired but they are otherwise subject to the conditions of the Land Act.

2) Education endowments may be leased under the Education Reserves Amendment Act, 1910, which modifies the Education Reserves Act, 1908, and allows a lease of the lands in question to be granted under the Public Bodies' Leases Act, 1908, and the Land Act, 1908. The freehold of these lands cannot be acquired.

3) Public reserves not vested in trustees or a local authority may be leased under the Public Reserves and Domains Amendment Act, 1911, for a term of twenty-one years, with the right to renew such leases for a further term. The freehold of these lands cannot be acquired.

Crown Lands Selected in 1916-1917. — During the year which ended

on 31 March 1917 an area of 425,119 acres was offered for settlement on the various conditions of tenure provided by the Land Act, the Land for Settlements Act and the Education Reserves Acts. The crown also dealt with 2,709 acres comprised in endowment areas, the administration of which is carried out by the Department of Lands and Survey acting under special authority.

Under the optional system an area of 32,110 acres was advertised and was practically all selected.

An area of 39,657 acres was offered on renewable lease, 9,374 acres thereof being settlement land of which the lessees have the right to acquire the freehold, 26,344 national endowment, 2,543 acres ordinary crown land supposed to contain metal or other minerals, and 1,396 acres Cheviot Estate lands. The pastoral runs comprised an area of 311,803 acres and the small grazing runs one of 12,033 acres.

An additional area of 276,290 acres of crown, settlement, national endowment and Cheviot Estate lands, comprising 529 holdings, was set apart for selection by soldiers, to hold by the ordinary tenures of the Land and the Land for Settlements Acts and the special tenures of the Discharged Soldiers Settlement Act.

Altogether 1,010,152 acres were selected in 1916-1917 by 2,059 selectors. This area includes 181 acres sold by auction in small town and suburban sections to 135 purchasers. Holdings of ordinary crown lands covered 616,000 acres, those of land for settlement and of Cheviot Estate land 68,140 acres, those of national endowment land 309,952 acres, and those of education endowment land 16,057 acres.

Of the total area of 1,010,152 acres selected in this year 373,262 acres were selected by 1,234 selectors on settlement conditions. These 373,262 acres include all lands bought for cash and acquired on the system of deferred payment, small grazing runs, and lands taken on renewable leases and occupied with a right of purchase, education endowment lands leased, and lands in mining districts leased or acquired by pastoral licenses. Details are given in the following table :

Size of holdings	Sold for cash	Deferred payment licenses	Leases and licenses (ordinary settlement)	Small grazing runs	Totals
Under 1 . . . acre	112	16	61	—	190
1-50 . . . acres	178	19	239	—	436
51-250 . . . "	20	1	327	—	348
251-500 . . . "	—	1	132	—	133
501-1,000 . . . "	—	—	69	—	69
Over 1,000 . . . "	1	—	41	16	58
Totals	311	37	870	16	1,234

During the past ten years the selections on settlement conditions have been as follows :

Year ending 31 March	Sold for cash		Deferred payment licenses		Leases & licenses (ordinary settlement)		Small grazing runs		Total	
	Num- ber	Acreage	Num- ber	Acreage	Num- ber	Acreage	Num- ber	Acreage	Num- ber	Acreage
1908 . . .	407	28,522	—	—	1,175	370,531	64	226,757	1,646	625,810
1909 . . .	382	42,194	—	—	1,554	464,705	10	28,989	1,946	535,888
1910 . . .	381	8,886	—	—	1,357	341,686	45	298,494	1,783	649,066
1911 . . .	274	9,547	—	—	1,304	292,260	22	128,764	1,600	430,571
1912 . . .	409	6,096	—	—	1,281	379,552	23	144,617	1,718	530,265
1913 . . .	358	4,640	—	—	1,240	348,752	10	37,749	1,608	391,141
1914 . . .	312	5,948	—	—	1,293	364,543	4	14,691	1,609	385,182
1915 . . .	289	5,743	18	27	997	258,312	6	14,803	1,310	278,885
1916 . . .	319	7,097	11	486	884	251,822	12	150,514	1,226	409,919
1917 . . .	313	5,414	37	680	868	231,477	16	135,691	1,234	373,262

Tables A and B give a complete view of the position of crown lands on 31 March 1917. Table A shows the area the crown held at that date, the nature of the tenancies under the crown, the rent payable to the crown, and the area of the crown lands which had been made freehold. Table B shows the area in each district which had not yet been settled, dividing such area into the "area open for selection" and the "area remaining for future disposal". The latter category includes mainly rugged and mountainous country which can be occupied only in large tracts for purposes of pasturage.

Subdivision of Land. — Much of the agrarian legislation of recent years has aimed at preventing large areas of good land from being acquired or retained by a single individual. By the system known as the "land for settlements system" the State buys properties from individuals and subdivides them into small farms.

The Land Laws Amendment Acts of 1912 and 1913 encouraged or compelled further subdivision of large properties. Part III of the first of these Acts provides that the Minister of Lands and the owner in fee simple of any property may agree to subdivide it and to dispose of it by making public tender to sell or let with right of purchase the lots into which it is divided. On the execution of any such agreement the minister may advance the money required to render the land available for settlement, including the cost of subdivision and survey and the cost of constructing roads and bridges. In the case of a sale of land the agreement may provide for the payment of its price by annual instalments extending over a period of from ten to twenty years, interest on the unpaid amount being payable at a rate

TABLE A.

Tenure	Total number of selectors	Total area held	Total yearly rent or instalment payable	Total area made freehold	
				Number of purchasers	Area
		Acres	£		Acres
Sold for cash*	—	—	—	—	13,184,555
Deferred payment	663	134,568	21,173	9,722	1,136,454
Perpetual lease.	498	46,285	1,976	2,852	827,071
Occupation with right of purchase	5,760	1,713,729	123,947	2,686	738,184
Lease in perpetuity	9,296	1,952,453	232,277	1,818	356,243
Renewable lease	4,514	1,114,955	209,636	109	23,478
Agricultural lease	16	541	23	1,475	140,896
Homestead	—	—	—	525	80,453
Occupation leases in mining districts	707	24,087	1,484	21	816
Pastoral licenses in mining districts	907	213,168	5,252	20	3,426
Small grazing runs	871	2,620,302	93,590	28	32,738
Pastoral runs	662	10,289,113	77,831	—	—
Miscellaneous leases and licenses	5,998	1,231,730	36,219	—	—
	29,897	19,640,931	803,408	—	16,524,314
Thermal spring leases (Rotorua)	327	3,653	2,115	—	—
Education Endowments:					
Primary.	3,188	767,170	77,563	—	—
Secondary.	390	38,463	8,731	—	—
Totals	3,578	805,633	86,294	—	—
Grand totals . . .	33,802	20,450,217	891,817	—	16,524,314
Other endowment lands . .	840	361,484	17,866	—	—

TABLE B.

District	Total area open for selection	Total area remaining for future disposal, excluding land shown in preceding column
	Acres	Acres
Auckland	215,898	1,205,717
Hawke's Bay	24,526	161,302
Taranaki	18,745	181,359
Wellington	34,937	175,258
Nelson	105,293	1,145,885
Marlborough	18,196	33,218
Westland	502,603	220,320
Canterbury	12,500	163,940
Otago	13,144	105,891
Southland	30,724	283,969
Totals . . .	976,566	3,677,159

not exceeding 5 per cent. A lease shall be for twenty-one years, and the lessee shall have the right at any time while the lease is current to buy the land he holds at a price named in the tender. The yearly rent he pays must not exceed 5 per cent. of this price.

Section 49 of the same Act provides for similar agreements between the minister and the owners of native freehold land allowing such land to be sold or let. In pursuance of the agreement a proportion not exceeding a third of the proceeds of the disposal of the land is paid to the native owners and the remainder is paid into a native trust account and invested for them in trust.

Part VI of the Land Laws Amendment Act, 1913, provides that the Minister of Lands may at any time notify a landowner by writing that his land or a portion thereof is required for purposes of settlement. The owner is required, within six months of the date at which such notice is gazetted, to notify the minister whether he elects *a*) himself to subdivide the land and offer it for sale in subdivisions, or *b*) to enter with the minister into such an agreement under part III of the Act of 1912 as we have described, or *c*) to suffer compulsory seizure to be made of the land under the Land for Settlements Act. If he choose the first of these courses he must within three years subdivide the land, make roads on it and offer it for sale by public auction or private contract, on reasonable terms, fixing a reasonable minimum selling price. If he elect to enter into an agreement with the minister he must do so within six months. If he take neither of these two courses the land may be taken over compulsorily under the

Act within five years after the minister has notified the owner. An owner thus expropriated has a right to compensation.

This same Act of 1913 provides that a private property not in a borough or town may be taken over compulsorily by the minister if the Board of Land Purchase Commissioners agree that it has been formed by such an aggregation of smaller properties as is contrary to the public interest. Compensation for all land so seized is paid as the Public Works Act provides that it shall be paid when the crown takes over land needed for a public work.

Land thus taken over by the State for subdivision is offered to the public on renewable leases of thirty-three years, at reasonable rents and in suitable lots.

In the year which ended 31 March 1917 the Board of Land Purchase Commissioners considered 795 private properties, having a total area of 948,788 acres, with a view to subdividing them for purposes of settlement. In 1915-1916, 150 properties, having a total area of 277,549 acres, were considered. The total area bought in 1916-1917 was 50,140 acres for which £595,419 were paid.

There is still a keen demand for suitable land. Further purchases have been made and others are being negotiated. Recently the value of land has tended to rise and there is little prospect that it will fall in the immediate future.

In all 1,606,158 acres were bought down to 31 March 1917 at a total cost of £7,989,220.

The transfer of certain areas from crown to settlement lands and the adjustment of areas to counterbalance ascertained surpluses and deficiencies bring the total area which had been acquired on 31 March 1917 up to 1,780,081 acres. Of this area 98,678 acres have been sold for cash or made freehold, the total purchase money received being £332,238; and 21,102 acres are occupied by roads or unlet reserves. On 31 March 1917, 5,562 selectors were holding altogether 1,544,206 acres paying rents which amounted to £380,964 a year. The remaining 115,904 acres, having a yearly value of £15,744, were unlet.

Settlement of Discharged Soldiers on the Land. — In a previous issue (1) we gave particulars as to the settlement of discharged soldiers on the land of New Zealand under the Discharged Soldiers Settlement Act, 1915.

Under this Act 337,961 acres had on 31 March 1917 been set apart by proclamation for settlement by discharged soldiers. Of this area 219,839 acres were ordinary crown lands, 3,453 acres belonged to the Cheviot Estate, 81,810 acres had been acquired by the crown for subdivision and settlement, and 32,859 acres were national endowment lands.

During the year which ended on 31 March 1917, 522 applications were made for land under the Discharged Soldiers Settlement Act, and 319 allotments were made of a total area of 143,524 acres.

(1) See our issue for March 1917, page 120.

The following table gives details :

	31 March 1916 to 31 March 1917	Total until 31 March 1917
	acres	acres
Ordinary tenures	133,512	133,582
Special tenures	142,708	204,379
Total area proclaimed . . .	276,290	337,961

Section 24 of the Land Laws Amendment Act, 1915, provides for the acquisition of land by undischarged soldiers. It rules that any duly authorized agent of a member of a New Zealand Expeditionary Force may apply on behalf of that member, in his absence from New Zealand on military service, for any land available for applicants under the Land Act 1908 or the Land for Settlements Act 1908. Such agents, and also applicants for land who have at any time belonged to a New Zealand Expeditionary Force, shall at any ballot for land receive the preference accorded to married men who have families dependent on them and single men who have been twice unsuccessful in a ballot. Normally applicants for land must be at least twenty-one years old, but this limit is abolished in the case of men who have done military service outside New Zealand.

Under the provisions of this section a total area of 142,566 acres, whence an aggregate rent of £4,112 is payable, had been granted to forty soldiers on 31 March 1917.

B. Native Lands.

Administration. — Native Lands and native affairs in general are administered by the Native Department which has the following branches :

1) The head office is responsible for the general administration of the department. It deals with all matters to be brought before the cabinet, prepares orders-in-council, proclamations and parliamentary returns, and reports on petitions referred to the government by the Native Affairs Committee of the House. The purchase of lands by the Native Land Purchase Board is conducted through the head office.

2) The Native Land Court is the court of record of titles and deals, among other things, with the partition, exchange and alienation of and the succession to native lands, the incorporation of owners of such lands and the consolidation of interests in them, probate, and letters of administration. The work of this court is distributed over seven districts.

3) The seven Maori Land Boards are concerned with the confirmation and approval of alienations of land, the administration of native

lands by way of sale or lease, and the administration of estates as farms. The Boards also act as agents for owners and receive and pay out rents and purchase moneys.

The districts within which the Maori Land Boards are severally competent are continuous with the seven districts of the Land Court. They are the districts of Tokerau in North Auckland, Waikato-Maniapoto in South Auckland, Waiariki in Bay of Plenty, Tairāwhiti in Gisborne, Ikaroa in Wellington and Hawke's Bay, Aotea in Wanganui and Taranaki, and South Island which has its office at Wellington. The registrars of the Native Land Courts are the administrative officers of the Maori Land Boards.

4) Maori Councils, which are elected for defined districts and are composed of natives, supervise matters which generally affect the Maori settlements and "kaingas", more particularly matters of sanitation.

Certain native lands are still held by primitive tenures and a more modern title in them is sometimes acquired. Land held by a customary title in which a Native Land Court Title has not yet been conferred is known as customary or "papatupu" land. Land held collectively is sometimes "partitioned", in other words certain interests in it are separated. This separation is not necessarily made in the interests of an individual; but where land is "individualized", it is distributed among its owners in severalty.

All dealings with native land are now ruled by the provisions of the Native Land Act, 1909, which consolidated and repealed most of the many previous Acts having reference to native land and came into force on 31 March 1910, and by the provisions of amending Acts passed in subsequent years.

The Work of the Maori Land Boards. — The following statement shows what native lands were vested in and administered by the various Maori Land Boards on 31 March 1917.

Maori Land Board	Land subject to Native Land Act, 1909	Land subject to special enactment	Totals
	acres	acres	acres
Ikaroa	25,882	818	26,700
Aotea	208,231	1,461	209,692
Tairāwhiti	176,139	1,139	177,278
Waiariki	119,866	7,374	127,240
Waikato-Maniapoto	198,176	1,651	199,830
Tokerau	160,371	57,313	217,684
Totals . . .	888,665	69,759	958,424

In 1916-1917, 11,261 acres were disposed of by lease and 20,179 acres

by sale, as against 1,856 acres by lease and 988 acres by sale in the previous year.

With regard to native freehold land, the Boards during the year* approved 534 leases of an aggregate area of 92,303 acres, and confirmed 1,195 sales, other than sales to the crown, of a total area of 137,382 acres. These figures show that the number of leases was less by 63 and the area leased by 7,538 acres than in the previous year, while the number of sales was greater by 76 and the area sold by 19,550 acres.

The Native Land Purchase Board has the function of acquiring native land by way of purchase, which transaction transfers it from the category of native to that of crown land. The Board deals with a steadily increasing amount of business. In 1916-1917 some 89 blocks of land, comprising 65,148 acres, were proclaimed crown land. An area of 143,528 acres was bought as compared with one of 154,006 in the previous year. The purchase in the Urewera Reserve of 56,741 acres brought the crown purchases in this reserve up to 182,236 acres on 31 March 1917.

About 264,204 acres of native land were debarred in 1916-1917 from private alienation. A large portion of this area had already been acquired by the crown, and of the portion not thus acquired 38,740 acres were bought during the year, while negotiations for the remainder are proceeding.

In the seven years between March 1910, when the Native Land Act became active, and March 1917, the Native Land Board spent a total sum of £1,384,315 on the purchase of native lands. In this period an aggregate of about 1,872,599 acres of native land was alienated of which area 663,920 acres or more than a third were acquired on behalf of the crown.

C. Land subject to the Land Transfer Act.

By the Land Transfer Act, 1870, the system of title to land by registration was introduced into the law of New Zealand. The title to the properties to which the Act applies has since been unaffected by documents other than the land register. It is only on registration that any interest in land passes. The system is fully explained in an article in our issue for February 1917 (1).

The Conversion of Titles. — The following table shows what action was taken in the matter of registering deeds conferring title to land in the year which ended on 31 March 1917.

Number of deeds unrecorded on 31 March 1916	1,178
" " " received for registration in 1916-1917	15,015
" " " registered in 1916-1917	15,664
" " " unrecorded on 31 March 1917	529.

The following table shows the number of certificates of title to land issued in each year from 1907-8 to 1916-17.

Year ending 31 March	Number of certificates issued	Years ending 31 March	Number of certificates issued
1908	11,208	1913	13,075
1909	10,570	1914	12,867
1910	9,525	1915	11,074
1911	11,645	1916	10,525
1912	12,907	1917	10,350

The three following tables give details as to 1) the applications made in 1916-1917 to transfer land of other categories into the category subject to the provisions of the Land Transfer Act, 2) similar applications from 1907-8 to 1916-17, 3) transfers of this description registered in 1916-17, and 4) transfers of this description registered from 1907-8 to 1916-17.

Applications in 1916-17 to bring land under the Land Transfer Act.

Town and suburban land	{ Number of properties involved	185
	{ Area (acres)	133
	{ Value (£).	274,285
Rural land.	{ Number of properties involved	224
	{ Area (acres)	37,447
	{ Value (£).	754,858

Applications from 1907-1908 to 1916-1917 to bring land under Land Transfer Act.

Year ending 31 March	Number of applications	Area involved of		Value of land involved
		towns and suburban land	rural land	
		Acres	Acres	£
1908.	797	389	24,028	1,693,271
1909.	617	526	9,157	1,061,537
1910.	565	376	64,697	821,306
1911.	705	324	3,054	1,229,990
1912.	571	830	65,028	1,078,124
1913.	656	398	108,945	1,561,586
1914.	563	156	123,712	1,361,042
1915.	478	159	105,180	1,247,905
1916.	428	185	64,914	1,215,552
1917.	409	133	37,447	1,029,143

Transfers registered in 1916-1917.

Town and suburban land	Number of properties.	13,672
	{ Area (acres)	79,316
Rural land	{ Number of properties.	8,515
	{ Area (acres)	2,676,691

Transfers registered from 1907-8 to 1916-17.

Year ending 31 March	Number of properties	Area	
		Town & sub- urban land	Country land
		acres	acres
1908	21,791	6,678	2,939,491
1909	19,096	6,000	1,925,218
1910	17,277	5,623	1,457,395
1911	22,157	7,394	1,958,709
1912	24,297	7,298	2,391,004
1913	24,495	7,471	2,516,821
1914	23,983	7,333	2,206,268
1915	21,381	6,206	2,129,973
1916	22,394	7,073	2,414,007
1917	22,187	79,316	2,676,691

Mortgages. — Whereas under the system prevailing before the passage of the Land Transfer Act a mortgager conveyed land to a mortgagee, subject to a right to reconveyance on repayment of the loan which the mortgage secured, under the Act a mortgage effects no transfer of property but only creates a charge (1).

In the year which ended on 31 March 1917, 18,803 mortgages securing £17,604,524 were registered under the Land Transfer Act. The following figures give details :

Mortgages registered under the Land Transfer Act.

Town and suburban land	{ Number of mortgages.	9,462
	{ Area mortgaged (acres)	4,342
	{ Amount secured (£)	4,215,266
Rural land	{ Number of mortgages.	9,341
	{ Area mortgaged (acres)	3,714,395
	{ Amount secured (£)	13,389,258

(1) See the article already cited, pages 99-100.

Similar mortgages from 1907-8 to 1916-17 were as follows:

Year ending 31 March	Number of mortgages	Area mortgaged		Amount secured £
		Town and suburban land	Rural land	
		acres	acres	
1908.	19,795	5,352	5,090,682	15,637,486
1909.	20,715	5,904	4,174,036	14,650,466
1910.	19,955	5,379	3,734,962	13,611,123
1911.	23,397	6,069	4,435,402	16,896,484
1912.	25,127	8,033	4,784,883	19,128,732
1913.	23,883	10,965	5,549,385	18,643,708
1914.	23,988	5,642	4,862,163	18,080,701
1915.	21,795	5,393	4,036,464	16,378,727
1916.	20,545	4,872	4,608,014	18,428,772
1917.	18,803	4,342	3,714,395	17,604,524

This table shows that £17,604,524 were secured by mortgages registered under the Act in 1916-17. In the same year mortgages amounting to £10,660,938 were paid off. The total sum secured on 31 March 1917 — £127,638,984 — therefore represents a net increase on the previous year of £6,947,586.

In addition to the mortgages under the Land Transfer Act there are a considerable number of other mortgages registered under the Deeds Registration Act. The number thus registered in the year which ended 31 March 1917 was 3,615 and secured £3,452,350. The total number of mortgages registered in this year was therefore 22,418 and secured £21,056,874.

The total amount represented by the mortgages on the register, under the Land Transfer and the Deeds Registration Act, on 1 April 1916 was £124,208,969. Since mortgages in 1916-1917 were for £21,056,874, and since 17,916 mortgages securing £12,994,003 were discharged in 1916-17, the total amount represented by registered mortgages on 31 March 1917 was £132,271,840. The net increase during 1916-17 was therefore one of £8,062,871.

It should however be explained that the amounts quoted in respect of mortgages do not always represent the true amounts of the advances made. Where a mortgaged property is situated in more than one registration district a mortgage deed securing the full amount advanced is registered in each of these districts. There is therefore some duplication. On the other hand mortgages securing temporary loans, liens on stock and crops, bills of sale and conveyances of chattels are not registered and are not therefore included in our figures.

We reproduce figures showing the total amounts represented by the mortgages registered and discharged in 1915-16 and in 1916-17 :

	1915-1916	1916-1917
	£	£
Mortgages registered	22,463,297	21,056,874
Mortgages discharged.	12,802,549	12,994,003

Classified according to the various rates of interest paid on the mortgages, the amounts in the mortgage deeds registered in 1915-1916 and 1916-17 were as follows :

Rate per cent.	1915-16	1916-17	Rate per cent.	1915-16	1916-17
	£	£		£	£
0.	50	1,217	6 1/2	664,400	835,743
3/4.	—	850	6 3/4	24,100	1,775
1.	940	150	7	777,404	765,047
2.	1,600	3,025	7 1/4	8,276	—
2 1/2	3,659	3,400	7 2/5	—	500
2 9/10	2,327	—	7 1/2	78,750	126,207
3.	2,527	10,365	7 3/4	16,800	450
3 1/3	5,040	—	8.	677,924	599,875
3 1/2	1,560	6,477	8 1/4	725	—
3 3/4	662	469	8 1/3	450	—
4.	90,033	25,000	8 1/2	25,412	15,093
4 1/4	1,800	90	8 3/4	1,500	—
4 1/3	—	525	9.	57,467	41,767
4 1/2	274,249	83,562	9 1/2	500	2,140
4 3/4	2,800	12,578	9 3/4	—	150
5.	4,732,362	3,443,095	10	200,349	166,443
5 1/4	196,933	101,088	11	220	—
5 1/3	2,500	—	12	3,066	4,077
5 2/3	3,500	—	12 1/2	£237	50
5 49/120 . . .	850	—	15	350	350
5 1/2	7,010,861	6,767,462	20	400	71
5 2/60	500	—	25	393	—
5 3/5	6,900	2,875	30	—	44
5 3/4	288,469	380,504	33 1/4	—	60
5 5/6	—	5,000	40	—	50
6.	5,828,824	1,281,749	unspecified	1,426,474	1,298,025
6 1/8	—	2,000			
6 1/5	—	1,500			
6 1/4	37,254	65,975	Totals . . .	22,463,297	21,056,874

These figures should be compared with the following which show the rates paid on mortgages registered in 1895-6. It will be seen that a lowering of rates of interest has taken place.

26,285	in small sums at less than 5 per cent.
833,226	at from 5 per cent. to 5 $\frac{1}{4}$ per cent
732,764	» 5 $\frac{1}{2}$ per cent.
116,660	» 5 $\frac{3}{4}$ » »
1,372,261	» from 6 » » to 6 $\frac{1}{4}$ per cent.
371,896	» » 6 $\frac{1}{2}$ » » 6 $\frac{3}{4}$ » »
599,542	» » 7 » » » 7 $\frac{1}{4}$ » »
111,651	» 7 $\frac{1}{2}$ » »
382,348	» 8 » »
173,416	in small sums at rates above 8 per cent.
853,801	at unspecified rates.
<hr/>	
5,573,790	

§ 2. OCCUPATION AND OWNERSHIP OF LAND.

A. *Occupation of Land.*

The area of occupied land in New Zealand in 1917 (1) was, leaving out of account holdings of less than an acre in extent and those within the boundaries of boroughs, 42,709,337 acres, being 1,447,144 acres in excess of that occupied in 1916. The number of holdings was 77,229 in 1916 and 79,439 in 1917.

The following figures distribute holdings according to their several areas as shown by returns made at five different dates :

(1) To reach the figures which refer to 1917, as given on this and the following pages, it has been necessary to use returns for 1916 for Waima county, whence returns for 1917 had not been received when these statistics were prepared.

Holdings classified according to area

Holdings of	1907-8		1908-9		1911		1916		1917	
	Number	Area in acres	Number	Area in acres	Number	Area in acres	Number	Area in acres	Number	Area in acres
1 to 10 acres	21,186	86,870	21,927	88,749	18,075	81,397	15,454	60,390	15,800	71,941
11 " 50 "	12,147	340,498	12,360	346,453	12,151	335,056	12,748	358,726	15,087	368,008
51 " 100 "	7,760	604,567	7,780	611,622	7,948	618,980	9,122	708,228	9,378	729,316
101 " 200 "	10,098	1,533,048	10,206	1,544,963	10,746	1,627,608	12,158	1,812,196	12,600	1,873,106
201 " 320 "	6,827	1,764,903	6,831	1,769,875	7,083	1,818,087	7,972	2,054,917	8,141	2,093,169
321 " 640 "	7,602	3,491,728	7,828	3,582,822	8,466	3,872,809	9,572	4,355,985	9,796	4,464,145
641 " 1,000 "	3,011	2,425,028	3,202	2,618,008	3,611	2,931,721	3,895	3,149,598	4,025	3,246,670
1,001 " 5,000 "	3,816	7,677,624	4,090	8,086,931	4,780	9,388,126	5,284	10,366,504	5,533	10,907,027
5,001 " 10,000 "	436	2,994,820	458	3,193,571	526	3,525,514	517	3,593,266	561	3,919,239
10,001 " 20,000 "	247	3,365,132	235	3,234,480	264	3,751,346	277	3,880,927	282	3,986,255
20,000 " 50,000 "	153	4,870,772	151	4,781,801	136	4,157,740	165	5,126,470	172	5,413,820
Over " 50,000 "	84	8,409,298	84	8,343,074	90	8,128,742	64	5,785,986	64	5,656,641
Totals	73,367	37,564,288	75,152	38,204,349	73,876	40,238,126	77,229	41,262,193	79,439	42,709,337

• These holdings include crown lands leased as pasturage of which the total area in 1917 was 11,800,764 acres.

Holdings of an area between one and ten acres appear from the table to have grown fewer between 1908-9 and 1911 and between 1911 and 1916. It should however be remembered that the figures in the table do not include boroughs, and that many holdings of five or ten acres near populous centres have been cut up into building sites, nearly always less than an acre in extent, and have thus come to be excluded from the returns.

Of the 79,439 holdings which existed in 1917, 38,265 or 48.17 per cent. were from one to 100 acres in area ; 50,865 or 64.03 per cent. from one to 200 acres ; and 59,006 or 74.28 per cent. from one to 320 acres. Only 20,433 or 25.72 per cent. had an area of more than 320 acres. In considering this percentage of large holdings it should be recollected that the figures in the table include the pastoral tracts of land leased by the crown. It may be stated that the data indicate on the whole that settlement is moderately close.

The following table shows the number and area of occupied holdings in each land district in 1917.

Land district	Number of holdings	Area in occupation
		Acres
Auckland	22,917	6,946,731
Hawke's Bay	6,084	4,563,083
Taranaki	6,227	1,701,397
Wellington	10,836	4,808,208
Nelson	3,606	1,227,311
Marlborough	1,974	2,555,383
Westland	1,403	1,707,698
Canterbury	12,932	8,130,677
Otago	7,954	7,907,672
Southland	5,456	3,161,177
Totals . . .	79,439	42,709,337

The occupied holdings on the North Island in 1917 numbered 46,064, those on the South Island only 33,375. In 1916 these figures were respectively 44,250 and 32,979. The average area of holdings varies from 14 acres in the closely settled Eden County to 9,013 acres in Fiord. For the whole dominion it is 538 acres ; and this average is exceeded in 45 out of the 125 counties and not reached in 80. The average area of holdings in the South Island, 740 acres, is nearly double that of holdings in the North Island, 391 acres.

The following table distributes the occupied land according to the various forms of its tenure:

Total area of holdings	Acres	42,709,337
Freehold land occupied by owner	»	17,727,647
Land leased from individuals or public bodies	»	3,452,303
Land leased from natives.	»	1,942,778
Land held from crown by various tenures	»	19,580,413
Land held by unspecified tenures	»	6,96

A large percentage of the land held of the crown is held on crown pastoral leases. The area held on such leases was 11,915,580 acres in 1891; 11,001,333 acres in 1911; 10,642,507 acres in 1916; and 11,800,764 acres in 1917. The total area occupied in these respective years was 31,867,505 acres; 40,238,126 acres; 41,262,193 acres; and 42,709,337 acres.

B. Ownership of Land.

The area of occupied and that of owned land are not identical because a considerable amount of land which is owned is unoccupied and unused. The total area of New Zealand is sixty-six million acres, and on 31 March 1910 more than nineteen and a half million acres of rural land were held as freehold by individual Europeans. Other land was held by urban landowners, the crown, native owners, local bodies, churches, educational bodies, friendly societies and other public bodies.

The following table gives details as to the freeholds in rural areas on 31 March 1910:

Area of holdings			Number of owners	Total area	Capital value	Unimproved value
				Acres	£	£
From	5 to	320 acres	36,234	3,457,551	39,426,890	26,224,383
»	320 »	640 »	5,394	2,422,803	18,177,896	13,049,185
»	640 »	1,000 »	2,063	1,618,609	11,179,793	8,087,573
»	1,000 »	2,000 »	1,748	2,487,571	14,967,929	11,034,208
»	2,000 »	5,000 »	1,006	3,966,195	16,735,307	12,612,376
»	5,000 »	10,000 »	306	2,113,081	9,214,768	6,934,896
»	10,000 »	20,000 »	121	1,661,381	6,044,068	4,665,446
»	20,000 »	30,000 »	28	683,368	1,984,990	1,508,004
»	30,000 »	40,000 »	5	175,001	313,003	232,999
»	40,000 »	50,000 »	6	262,565	431,721	196,091
»	50,000 »	100,000 »	11	727,156	723,084	565,858
»	100,000 »	150,000 »	—	—	—	—
150,000 acres and more . .			—	—	—	—
TOTALS . . .			46,922	19,575,281	119,097,455	85,111,019

These data do not exist for freeholds under 10,000 acres in extent for any date earlier than 1906. As regards the larger freeholds we have however the following comparative data :

Area of holdings	Total area in		
	1889	1906	1910
Acres	Acres	Acres	Acres
From 10,000 to 20,000 . . .	1,911,154	1,817,562	1,661,381
» 20,000 » 30,000 . . .	1,221,829	1,002,816	683,368
» 30,000 » 40,000 . . .	921,435	474,822	175,001
» 40,000 » 50,000 . . .	570,646	353,100	262,565
» 50,000 » 75,000 . . .	723,459	496,507	560,250
» 75,000 » 100,000 . . .	522,590	342,593	160,900
» 100,000 » 150,000 . . .	241,423	—	—
150,000 and more	1,389,664	223,242	—

These figures indicate that the aggregate area of these large holdings was reduced by 2,797,658 acres between 1889 and 1906 and by further 1,195,071 acres between 1906 and 1910, or by 3,992,729 acres between 1889 and 1910. The average area of these large freeholds decreased steadily from 1889 onwards, as follows:

Year	Average acreage of large freehold
1889	30,009
1892	29,924
1902	28,312
1906	23,061
1910	20,523

The number of the owners of the freeholds of different sizes varied as follows between 1883 and 1910 :

Size of holdings				Number of freeholders in						
				1883	1886	1889	1892	1902	1906	1910
From	5 to	320	acres	25,407	28,521	31,324	32,211	34,800	35,200	36,234
"	320 "	640 "		2,695	2,982	3,189	3,553	4,735	5,107	5,394
"	640 "	1,000 "		931	1,043	1,035	1,143	1,580	1,862	2,063
"	1,000 "	2,000 "		816	916	906	992	1,369	1,553	1,748
"	2,000 "	5,000 "		465	509	507	566	775	864	1,006
"	5,000 "	10,000 "		203	220	221	205	260	278	306
"	10,000 "	20,000 "		141	151	134	148	123	129	121
"	20,000 "	30,000 "		49	43	50	45	40	40	28
"	30,000 "	40,000 "		23	31	26	30	21	14	5
"	40,000 "	50,000 "		11	5	13	9	9	8	6
"	50,000 "	100,000 "		19	25	18	20	18	12	11
"	100,000 "	150,000 "		2	2	2	4	2	—	—
"	150,000 acres and more			2	2	7	6	3	1	—
Totals				30,764	34,450	37,432	38,935	43,735	45,068	41,922

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL, IN VARIOUS COUNTRIES.

AUSTRALIA.

AGRICULTURAL LABOUR IN VICTORIA IN 1916-1917. — *Victorian Year-Book*, 1916-17, Melbourne.

The importance of agricultural labour in the State of Victoria appears at once when it is noted that out of the total population of 1,315,551 discovered in 1911, 155,729 are employed in the agricultural and pastoral industries. This number has since been slightly reduced and tends to return to the figure of 1907, but it may be asked whether the war, which has withdrawn a certain number of workers from the fields, is not responsible for the change. The following table shows that while the number of male workers has lessened since the outbreak of war that of the women has increased. We cannot therefore draw final conclusions until there has been a full return to normal conditions.

*Number of Persons employed on Arable, Dairy and Stockfarming
from 1907 to 1916.*

Year	Men	Women	Total
1907	93,981	51,905	145,886
1908	94,990	52,410	147,400
1909	96,873	52,782	149,655
1910	99,948	54,083	154,031
1911	100,689	55,040	155,729
1912	100,665	52,868	153,533
1913	101,353	51,837	153,190
1914	98,354	49,242	147,596
1915	98,617	49,038	147,655
1916	65,535	50,964	146,499

These figures do not include persons absent from their farms and following other occupations during the greater part of the year, nor temporary hands engaged for harvesting or other work, nor cooks and other domestic servants. They do however include women partly engaged on outdoor work. It is estimated that the temporary labour employed on farms is equivalent to the continuous work throughout the year of about 24,000 men.

Two factors affect the supply of agricultural labour in contrary senses. In the first place, as the following figures show, the cultivated area increases every year, and it might be expected that the need for labour would inevitably become greater in consequence.

Cultivated area.

Year ending 31 March	Acres
1911	5,386,247
1912	5,109,849
1913	5,706,579
1914	6,129,893
1915	5,969,304
1916	7,069,608
1917	6,750,894

But, on the other hand, labour-saving machinery is used to an extent which increases with astonishing rapidity. The number of all machines except steam engines, machines worked by horses, winnowing machines and strippers was much greater in 1917 than 1912. The percentage of increase between these two years was 113 in the case of oil-engines, 25 in that of shearing machines, 33 in that of harvesters, 44 in that of threshing machines, 24 in that of weeders and 23 in that of grain drills and that of cream separators.

The increased use of machinery demands more skill on the part of workmen and therefore naturally does not tend to lower wages. Information received from occupiers of holdings has enabled the following table of agricultural wages to be compiled :

Occupation	Minima and maxima of wages	Prevailing rates of wages
Ploughmen.	25 s. to 50 s. per week	30 s. per week
Farm labourers.	20 s. to 50 s. per week	27 s. 6 d. per week
Threshing machine hands.	9 d. to 1 s. per hour	10 d. per hour
Harvest hands	7 s. to 10 s. per day	8 s. per day
Milkers	20 s. to 30 s. per week	25 s. per week
Maize pickers	5 d. to 7 d. per sack plus food	9 d. per sack, plus food
Hop pickers	3 d. to 5 d. per bushel	4 d. per bushel
Married couples	30 s. to 60 s. per week	40 s. per week
Woman servants	10 s. to 25 s. per week	15 s. per week
Cooks (men).	25 s. to 50 s. per week	30 s. per week
Stockmen	£ 52 to £ 100 per year	£ 65 per week
Generally useful men	20 s. to 40 s. per week	25 s. per week
Shearers, hand	20 s. to 25 s. per 100 sheep	24 s. per 100 sheep
Shearers, machine	20 s. to 25 s. per 100 sheep	24 s. per 100 sheep
Bush carpenters	30 s. to 60 s. per week	35 s. per week
Market gardeners	20 s. to 40 s. per week	27 s. 6 d. per week
Orchard hands	20 s. to 50 s. per week	27 s. 6 d. per week
Vineyard hands	20 s. to 50 s. per week	25 s. per week

BRITISH INDIA.

1. LAND SETTLEMENT IN THE STATE OF MYSORE. — VENKATANARASAPPA (M.) of the Mysore Forest Service in *The Mysore Economic Journal*, Vol. IV, No. 6, June 1918.

An interesting essay in land settlement has been made in the last ten years in the forest zones of Mysore State and has achieved notable results. The problem was to repopulate the deserted villages in the Ghat regions of the Sagar and Nagar Taluks with Mahratta Kunbies, a Nomadic tribe. All previous attempts to induce them to settle in these regions, and to give up the wasteful *humri* system of cultivating areas cleared by burning dense jungle and successively abandoned as crops were harvested, had failed. It was a system which had wrought much damage to the forest wealth of the region. To forbid it rigidly at once would have scared the Kunbies away; and it was therefore decided that each Kumbi settler should be allowed one acre of land for *humri* every third year on condi-

tion he at the same time took up at least three acres of paddy-land which he would hold rent-free for three years. In 1907-8 fifty chosen cultivators were settled on these terms, each of them being given a pair of bulls and 5 rupees' worth of seed.

Encouraging results were obtained and further concessions were therefore made. A money grant not to exceed Rs. 20 was sanctioned for the maintenance of each new indigent family in its first year of settlement, together with a sum not exceeding Rs. 10 to cover the costs of such family's journey to its place of settlement; the area granted to a family for *kumri* cultivation was raised from one acre to two and the period for which the land granted was held freely from three to five years; and the scheme was extended so that it should benefit other indigent persons willing to take up lands.

At the end of June 1917, 246 families comprising 1,193 persons were settled in twenty-six colonies in the Sagar and Nagar Ghats. An area of 867 acres of wet land had been brought under cultivation, the total *kumri* area being 678 acres. The total expenditure on the scheme down to this date was Rs. 25,374; and it had benefited 269 families of whom 23 had been eliminated by the death of their headmen and other causes. Fifty-eight families were paying a regular rent of Rs. 491 for 204 acres of wet land, of which the free tenancy had expired. The settlers were beginning to grow sugar-cane and other industrial crops as well as paddy and *ragi*.

The following facts indicate the increasing prosperity and civilization of the settlers. Nine families have taken up 40 acres of wet land in addition to the holdings originally assigned to them. About one fourth of the total number of settled families have been able to increase their stock by buying plough and milch cattle. Most of them have replaced their crude earthenware pots by brass and copper cooking and household vessels. Their dress, appearance, manners and conduct, and the appearance, comfort and cleanliness of their houses have improved.

The government has sunk wells in the colonies and intends to open two dispensaries. It has founded five schools which were attended last year by 129 pupils. To develop a spirit of association among the settlers and protect them from moneylenders a co-operative society having unlimited liability was founded in September 1915. At the end of June 1917 it had 177 members who held 576 shares of one rupee each. It had then granted 28 of its members loans amounting to Rs. 623 and bearing interest at the rate of 6 per cent., while the moneylenders in the nearest villages were charging from 18 to 24 per cent. on loans.

This fortunate experiment in co-operative credit, applied to a people who a few years ago were still living in the nomadic state and on the very edge of civilization, is particularly interesting.

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2. THE SUBDIVISION AND FRAGMENTATION OF HOLDINGS IN THE BOMBAY PRESIDENCY. — KEATINGE (G. F.), Director of Agriculture, Bombay Presidency, in *Indian Journal of Economics*, Vol II, Part. 2, No 6, Allahabad, July 1918.

The excessive subdivision of the land constitutes one of the grave problems of Indian agriculture. In many districts it has so reduced the areas of holdings, and has made their composition so fragmentary, that much prejudice has been wrought to effective cultivation. The fragmentation is due first to the increase of the population, and secondly to the Hindu law of inheritance which gives every son of a cultivator a share of his holding.

The evils of the present position, which are particularly evident in the Bombay Presidency, may be summarized as follows : *a*) the normal cultivation of lands is impeded and waste of time is caused ; *b*) permanent improvements are prevented ; *c*) the cultivator is not able to live on the produce of his holding ; *d*) the organization of labour and capital is prevented ; *e*) a cultivator is often prevented from obtaining two crops in a year ; *f*) the land is often starved ; *g*) enmity between neighbours and consequent lawsuits are encouraged ; *h*) generally speaking, an abnormal economic situation is produced.

In Bombay Presidency, and particularly in Koukow, West Deccan, and in the garden and rice lands of Gujarat, subdivision and fragmentation have brought about an intolerable state of affairs. Over vast extents of land the average area of holdings is only two or three acres, and fields of less than half an acre are divided into twenty or more plots belonging to different owners and often measuring no more than a *guntha* ($\frac{1}{10}$ acre). An investigation conducted at different points in the province has yielded interesting results. It was found that in the Kanara District an area of 52 acres, which would be sufficient at the most for three or four large holdings or six or eight of average size, was divided into 139 plots belonging to some fifty owners. In the Ratnagari District, at Shergaon, seventeen holdings measuring altogether 30 acres were composed of forty-nine fragments. In the rice land of Nehuli in the Kolaba District the average area of the holdings owned by agriculturists was $2\frac{1}{2}$ acres, and that of the other holdings 3 acres. Of the twenty-four holdings of the former kind one was large, three or four were of fair size, and the rest very small, nine measuring less than an acre. In Althan village in the Surat District (Gujarat) 694 acres were held by 99 landholders, the average area owned by a cultivator being 13 acres. In Abrama village, also in the Surat District, the case was discovered of a holding of a single *guntha* divided into eight fragments. In some parts of Northern Gujarat the fragmentation of holdings has gone very far : in one village fourteen out of twentyone fields were only a *guntha* in area ; in another five out of twenty-five fields measured one *guntha* while the others were of less extent.

In West Deccan the fairly regular rainfall and other conditions favourable to agriculture cause considerable more pressure of population on the cultivable land than in East Deccan. The difference between the area of agriculturists' and of non-agriculturists' holdings is particularly marked in West Deccan. In five villages in Satara District the average areas of agriculturists' holdings were found to be 5.96, 5.19, 6.09, 8.32 and 14.26 acres; those of the holdings held by non-cultivators and let to cultivators 22, 74.1, 54.1, 28.2 and 33 acres. In another and neighbouring village, where the average area of holdings was 5 acres, 22 *gunthas* of land were found to be divided among ten different owners, each of whom held on an average $2\frac{1}{5}$ *gunthas*. This land was consequently uncultivated.

In order to remedy this disastrous state of affairs, the Director of Agriculture of Bombay Presidency has formulated a scheme for the constitution of economic holdings, otherwise of indivisible homesteads duly registered by the authorities. This would allow the holder of a homestead to sell, mortgage or otherwise alienate it, but only as an undivided unit.

CANADA.

GOVERNMENT AID TO SETTLERS IN SASKATCHEWAN. — THOMSON (W. W.) Director, Co-operative Organizations, in *Farm and Dairy and Rural Home*, Peterboro, Ontario, 15 August 1918.

Of late years the government of Saskatchewan has helped settlement in this province in several ways which we will examine successively:

a) *Agricultural Credit*.—The Farm Loan Act passed by the Saskatchewan legislature in 1917 established the Saskatchewan Farm Loan Board authorized to lend money to farmers on first mortgages for purposes of production or of improvements. Funds are provided by the Provincial Treasurer, being raised by the sale of Saskatchewan Farm Loan Bonds which are backed by the security of the borrowers' property and guaranteed by the province. This money is lent to the Board at cost price, and then lent to the farmers at a rate of interest which covers only actual working expenses. No profit whatever is made by the Board. The Act has now been in force for several months and considerable sums have already been lent under the scheme.

No loan may exceed .50 per cent. of the value of its security. All loans are made for thirty years and are repayable in thirty equal annual instalments. The rate of interest is not definitely fixed and will fluctuate from time to time with the variations of the money market, but it is expected that an average saving of at least 2 per cent. will be effected.

The Live Stock Purchase and Sale Act, passed in 1913, provides for the sale of purely bred male and high-grade female cattle, sheep and swine to *bona fide* farmers for cash and credit. This Act is administered by the Provincial Live Stock Branch. Under it funds are pro-

vided with which the Live Stock Commission is authorized to purchase live stock to be resold to farmers at its actual cost.

According to an official publication, "grade females are supplied on payment of a quarter cash or half cash, while pure-bred females, when supplied, must be fully paid for in cash, the Department being of the opinion that men embarking in the breeding of pure-bred stock should be in a position to finance the purchase of pedigreed females. Up to \$400 worth of grade female stock will be supplied on a deposit of \$100 and up to \$1,000 worth on a deposit of \$500... Lien notes are taken to secure the balance due on the stock, and these are made payable, half at the end of the current year and the rest at the end of the succeeding twelve months. Sheep are supplied in the fall only, and notes for sheep become due July 1st and December 31st of the year after purchase... Interest is charged at 6 per cent. per annum... Pure-bred sires, bulls, boars and rams are supplied on a half cash basis, but bulls can also be purchased under the quarter cash option, notes for the balance being given".

The following table shows how animals were sold on these terms in the last five years:

	1913	1914	1915	1916	1917
Purely bred bulls : . . .	19	41	84	150	101
" " cows	18	14	12	6	15
Grade cows and heifers	345	483	368	342	1,267
Purely bred rams	—	13	35	10	33
Grade ewes	1,000	482	2,120	852	3,415
	1,382	1,033	2,619	1,360	4,831

Municipal Insurance against Hail. — We have already dealt several times with this subject (1) and need now only recal that 137 municipalities have adopted this system of insuring against hail.

Assistance to Selling Agricultural Produce. — In 1905 organized marketing was practically unknown in West Canada, but to-day, thanks largely to the support of the provincial government, co-operative marketing organizations handle the bulk of the dairy produce and a large and increasing share of the grain, live stock, wool and dressed poultry of the province.

Under the Saskatchewan Co-operative Elevator Company Act the government of Saskatchewan lends this great company (2) 85 per cent. of the capital it needs to erect its elevators.

The farmers in the territory tributary to a proposed elevator must subscribe for an amount of the company's capital stock sufficient to defray

(1) See our issues for May 1917, pp. 37-48; August 1917, p. 25; November 1917, p. 27; May 1918, pp. 393-4.

(2) See our issues for March 1917, p. 19; January 1918, p. 12.

the cost of the necessary material and labour, paying 15 per cent. in cash. The government then lends the company the remaining 85 per cent., the loan with interest being repayable in twenty equal annual instalments.

A special enquiry was made by the Co-operative Organizations Branch (1) into the systems followed in marketing live stock, and in the autumn of 1913 a bulletin was issued showing how co-operative consignments of stock were made in other States of the American Union, and suggesting that such co-operation should be practised in Saskatchewan. As a result nine farmers' associations adopted co-operative methods in 1914 and thirty carloads of stock were marketed co-operatively. In 1915 eleven associations thus marketed 140 carloads, and in 1917 thirty-five associations sold 556 carloads co-operatively for \$1,050,000. Last year a special effort was made to encourage this enterprise, and a representative of the Co-operative Branch is now sent gratis to help local associations to handle their first consignments. He helps the local manager to receive, mark, grade and consign the stock, and accompanies him to the terminal market to help him to dispose of it.

During the past five years the Co-operative Branch of the Department of Agriculture has acted as a free wool-marketing agency for the sheep-farmers of the province. The progress of sales since 1914 as a result of this government activity, with which we have already dealt (2), appears from the following figures:

Year	Number of consignments	Weight in pounds	Average price realized
1914	179	69,404	17 ³ / ₄ cents
1915	318	150,828	25 "
1916	487	179,880	32 ¹ / ₂ "
1917	623	223,445	65 "

In 1918 some 400,000 pounds of wool were sold by the Department through the recently organized Canadian Co-operative Wool Growers, Limited.

Stations for the co-operative marketing and killing of poultry have also been active for the last three years. The following figures show the quantity of birds handled:

Year	Weight of poultry
1915	27,039 lbs.
1916	59,442 "
1917	79,739 "

(1) See our issue for January 1918, p. 12.

(2) See our issue for February 1917, pp. 17-20.

GREAT BRITAIN AND IRELAND.

1. OUTGOING AND INCOMING TENANTS IN SCOTLAND

It is clear that in some cases difficulties might be encountered by District Agricultural Committees because outgoing and incoming tenants failed to come to an agreement as to the division of crops. The Board of Agriculture for Scotland therefore issued last spring an important memorandum which provides a basis for the necessary settlement. This memorandum is as follows:

"1) It is undesirable that any farm or any class of farms should be freed from providing a just share in the general increase of cropping desired for season of 1918.

"2) A certain proportion of farms in every county comes out of lease each Whitsunday, and of these a number will change hands at Whitsunday 1918.

"3) There is also a considerable number of yearly tenancies which may be terminated at Whitsunday 1918.

"4) According to almost universal custom, an outgoing tenant retains possession of a certain proportion of the arable part of the farm until the 'separation of the crop' of the year of his outgoing; that is, the 'waygoing crop' belongs to the waygoing tenant, who is generally bound to sell the crop at valuation as the proprietor or incoming tenant is bound to buy.

"5) For their own protection proprietors generally make it a condition in the leases they grant that not more than a certain area or proportion of the arable land may be in white crop in the year of the tenant's outgoing, or that the farm shall be cultivated on a five, six or seven years' rotation, as the case may be, which would mean that a certain specified proportion of the arable land, varying from one third to one half—no more and no less—should be in white crop in any year.

"6) Farmers have now freedom of cropping under the Agricultural Holdings Acts. This, however, does not relieve a farmer from the duty to leave his farm in the rotation fixed by the lease, and should he fail to do so the proprietor is entitled in his counterclaim to ask compensation for any loss or damage which have thereby been caused.

"7) The condition that a certain proportion of a farm may be in white crop at the termination of the lease is generally considered to govern the proprietor's liability to take over the crop at valuation; that is, the proprietor would be entitled to refuse to take over any crop grown in excess of the stipulated area.

"8) The present urgent demand for increased cultivation makes it necessary that every possible or available acre should be in white crop, but it is not equitable that the whole value of the crop grown on any area in excess of the area permitted by the lease should belong to the outgoing tenant. If it did he would be securing a grain crop from a certain part or proportion of his farm to which he was not entitled.

"9) In many districts in the north of Scotland the first, second and third year's grass is considered as a crop which the outgoing tenant sells to the incoming tenant. In such cases the outgoer pays the rent of the farm for the season succeeding his nominal outgoing. In the south of Scotland, on the other hand, the grass land, generally speaking, passes to the incoming tenant on the term of entry, subject to payment of the cost of the seeds sown in the previous year.

"10) In suggesting what might be a fair division of the crop between the outgoing and incoming tenant the conditions prevailing in the north and south must be kept in view. It is therefore suggested ;

"I. For the north :

a) that the outgoing tenant, who pays the rent of the land, should plough, harrow and roll the land and provide the seed, and at harvest be paid 65 per cent. of the value of the grain ;

b) that the incoming tenant should harvest the crop and be credited with 35 per cent. of the value of the grain and receive the straw.

"II. For the south :

(The respective duties of the outgoing and incoming tenants are stated as above, but only 55 per cent of the value of the grain is awarded to the outgoing tenant, the remainder going with the straw to the incomer who loses the summer's grazing).

"The value of the crop shall be ascertained in the manner provided by the lease of the farm."

In the event of the outgoing tenant being unwilling to accept the terms suggested, the District Agricultural Executive Committee will recommend the Board to exercise the powers of compulsion conferred on it by the Corn Production Act of 1917 (1).

* * *

2. COUNTY MARKETING SCHEMES IN ENGLAND AND WALES.

The Food Production Department of the Board of Agriculture and Fisheries has issued the following notice with regard to the County Marketing Schemes which are being set up on the initiative of the department.

"The aim is primarily the organized marketing of surplus fruit and vegetables grown by small cultivators. Last year a certain amount of assistance was given to such cultivators by the department acting in association with the Agricultural Organization Society (2); but only in four counties were there schemes in operation on a comprehensive scale. These counties were Worcestershire, Warwickshire, Carnarvon, and Shropshire.

"During the past few months schemes have been taken up in a number of other counties, notably East Sussex, West Kent, Notts, Surrey.

(1) See our issue for December 1917, page 75.

(2) See our issue for May 1917, pp. 15-24.

Pembroke, and Essex, and at the present time there are seventeen counties where, through Marketing Executive Committees formed by the Horticultural Sub-Committees, organizations have been created for the systematic collection and distribution of surplus produce. In most cases the scheme also provides for the preservation by canning, bottling, drying, etc., of perishable fruit and vegetables to be placed on the market at seasons of the year when fresh supplies are scarce.

"In addition to these 17 counties, 14 other counties are prepared to register societies, 7 have made arrangements for marketing, but not as yet by registered societies, 4 have arranged for local markets, 4 others are considering preliminary organization or deciding to join other counties on a federated scheme. There are 46 counties in England and Wales where systematized marketing is in full swing.

"In the departmental suggestions for organization, liberal allowance is made for the varying conditions existing in the different counties, all of which have to be taken into consideration in establishing suitable local depots. This elasticity of arrangement is appreciated and has been found to work excellently. For instance, in Bucks, Kent, Middlesex and parts of Sussex, the county organization consists chiefly of the establishment of stalls in the country markets and the bringing to these stalls of surpluses from the surrounding districts. This admittedly primitive method of handling a somewhat complex problem has proved extremely successful in a number of districts, notably East Grinstead, Chobham (Surrey), and Llanfairfechan.

"In North Wales a federation of 6 counties has been arranged, which includes Anglesey, Denbigh, Flint, Carnarvon, Merioneth, and Montgomeryshire, with a Central Marketing Depot at Llandudno and sub-depots in each of the counties federated.

"It is hoped that a very important part in the establishment of village depots will be played by women's institutes and similar bodies, which are expected to co-operate in the assembling and despatching of local surplus to the markets. Apart from the patriotic point of view, these schemes have a distinctly advantageous business side, as growers, large and small, market salesmen, small holders, farmers, allotment holders and gardeners' societies have been called into conference with railway representatives upon the subject. Every county scheme has been started on co-operative lines wherever possible. The value of the shares having been made so low, in order to come within reach of the smallest holder, accounts for the readiness with which capital has been raised in many counties, and offers splendid evidence of local feeling on the matter."

ITALY.

1. THE NEW SYSTEM OF AGRICULTURAL LEASES. — *Gazzetta Ufficiale del Regno d'Italia*, Rome, No 159, 6 July 1918.

By the lieutenantancy decree No. 880, dated 30 June 1918, the system of agricultural leases has been notably modified with a view to satisfying

the desires of tenants of rural holdings. This decree is the outcome of long study and ample discussion and may be divided into parts, concerned, respectively, with points of right and of procedure.

The two first articles are inspired by the principle which informs Article 1 of the lieutenantancy decree of 27 May 1915, No. 739, according to which "for all purposes of Article 1226 of the civil code (1) the war is held to create a *force majeure* not only when it renders the payment of debts impossible but also when it renders them excessively burdensome". In obedience to this principle Article 1 authorizes a tenant to ask his landlord to contribute equally with himself to meeting expenses arising out of special loans which burden his holding, if the duty of meeting them by himself have become, owing to the war, too onerous. Thus, a more equal distribution between the parties to a lease of the greater burdens imposed by the war has become possible.

In obedience to the same principle, and also with the object of satisfying the needs of agricultural economy, Article 2 authorizes the modification of a lease the terms of which impose a replenishing of stock which would be too burdensome.

That question connected with the revision of agricultural leases which has been especially the subject of discussion is more directly dealt with in Article 3. The government has not thought it well to authorize a general revision of contracts which would allow landowners to participate in the increased value of agricultural products, but has allowed the concession of special rights in those cases only in which a farm has yielded an extra profit so considerable as to be more than double the rent paid in 1912 and in 1913, and in which the existence of such profit is ascertained when the war tax is levied. In these cases the government has not authorized an indefinite increase of rent but only its increase by no more than 20 per cent of its former amount.

These provisions naturally do not apply to leases of small holdings from which the tax on extra war profits is not due. In their case the moratorium established by the decree of 6 May 1917, No. 871, and all the other rules imposed by that decree still hold good. However in the case of these holdings, where the respective positions of the parties to a lease is notably altered in favour of the tenant, the government has thought it just, in view of the compulsory moratorium which prevents the landlord from exercising his rights, to allow that a rent increased by no more than 15 per cent. be required.

Collective farms have been explicitly excluded from the effects of these measures in deference to the peculiar social aims they have in view.

The second part of the decree concerns the institution and working of arbitrating committees of *mandamenti* who are expected to solve on equitable principles all disputes which arise out of the application of the provisions we have described.

(1) By this article the debtor need not pay compensation if *force majeure* or chance prevent him from fulfilling his obligations or if he do what is forbidden him.

* * *

2. CESSION OF AGRICULTURAL MACHINES TO AGRICULTURISTS AND GROUPS OF AGRICULTURISTS. — *Gazzetta Ufficiale del Regno d'Italia* No. 187, Rome, 8 August 1918.

In order to promote more intensive cultivation the Ministry of Agriculture has been authorized by the decree No. 1057, dated 14 July 1918, to provide to agriculturists and their groupings the tractors and the other agricultural machines, with the material necessary to work them, which the Ministry of Agriculture has imported or will import from abroad and which it itself causes to be made by home enterprise. The ministry will fix the cost and method of obtaining these machines. It is forbidden that they be ceded gratis, even temporarily.

Machines and material received from the Ministry of Agriculture cannot be transferred to a third party without the ministry's authorization. If this rule be transgressed the ministry will immediately, without formality, withdraw the machines or material in question.

JAPAN.

THE COST OF LIVING AMONG JAPANESE TENANT FARMERS. — KOKICHI MORIMOTO, Associate Professor of Economics in Tohoku Imperial University, *The Standard of Living in Japan* — John Hopkins University Studies in Historical and Political Science, The John Hopkins Press, Baltimore, 1918.

In 1913 an enquiry was made into the cost of living among 207 families of the tenants of the farms of the College of Agriculture in Hokkaido, the northern island of Japan. These farms were chosen as representative of the general economic conditions of the country. Each of the families was self-supporting and included from two to four children less than fifteen years old. Farming in these regions is more extensive than on the main island of Japan. But the climate is more severe and the farming season much shorter, and therefore the economic situation of the small farmers is not much different.

Maize, wheat, beans, oats and potatoes are the principal crops. There are no dairies. The average area cultivated by a tenant's family is 12.6 acres. Because the farms are owned by the government for scientific purposes a rent far below the usual rate is charged, and therefore the value of the right of tenancy is almost equal to the real value of the land. The average total capital of the families investigated is 1330 yen, distributed as follows :

Average capital	Value in yens	Percent of capital	Remarks
Real estate (right of tenancy)	750.82	57	Area of land, 12.6 acres
Buildings	195.95	15	2.4 buildings covering 115.9 sq. feet
Clothing.	162.82	12	
Horses	108.48	8	Number of horses, 1.23
Furniture	58.47	4	
Farm implements	51.23	3	
Chickens.	1.15	1	Number of chickens, 2.58
Hogs	0.87	1	Number of hogs, 5.12
Total . . .	1,329.79	100	

The average income of each family is 589 yen, of which sum 76 per cent. comes from crops and 11 per cent. from labour done for others. The labour each family expends on its own farm is not counted in this income.

Sources of Income.

Source of income	Value in yens	Percent	Remarks
Crops	451.66	76	Crops sold, 289.30 yen
Labour	61.33	11	Work on other farms
Manures produced on farm	24.50	4	Human waste, 556 gallons (40 gals. at 50 sen); horse manure, 28,945 lbs. at 50 sen.
Horses.	20.09		
Chickens	0.96	4	0.24 horses sold
Hogs.	0.85		0.13 hogs sold
Sundries	29.64	5	
Total . . .	589.03	100	

The expenditure of each family is 519.66 yen, that is 216.32 yen on farming (1) and 303.34 or 58 per cent. of the whole sum on living. Of the sum spent on living nearly 60 per cent. is spent on food, of which 55 per cent. is produced on the farm and 45 per cent. bought. The next largest item is clothing which accounts for 9.3 per cent. of the expenditure. The cost of housing is only 2.6 per cent. although it includes the expense

(1) These costs are distributed as follows : rent of land 29.05 yen ; sinking fund 54.16 yen ; implements and furniture 10.30 yen.

of a sinking fund. Each family owns its home but the housing conditions are very poor. The third great item, recreation, forms 6.6 per cent of the expenditure and consists mainly of smoking and pilgrimages. Lighting and heating come fourth, forming 5.9 per cent. The lighting is very inexpensive; but heating in these cold districts is important. Fuel is at present the wood gathered on the farm lands, but other supplies will soon be necessary and the problem of fuel will become serious. The expenditure on medical aid, 5 per cent., is comparatively high, mainly because the standard of living is too low. The following table shews the average expenditure of a family.

Cost of Living.

Items	Amount in	Percent.	Items	Amount in	Percent.
	yen			yen	
Food (1)	181.077	59.7	Recreation	20.020	6.6
Clothing	28.302	9.3	Charity and religion . .	6.924	2.3
Housing	7.962	2.6	Health	14.748	4.8
Lighting and heating . .	18.060	5.9	Education	4.258	1.4
Taxes and fees	11.862	3.9	Saving	1.186	0.4
Society	6.304	2.1	Other items	2.636	0.9
			Total . . .	303.339	100—

(1) The value of the food produced on the farm is 117.70 yen.

The daily diet of the farmers is very monotonous; they eat almost the same dishes throughout the year. Their principal food is rice and barley and their chief subordinate food vegetables. Each adult consumes on an average 3.45 go (0.164 gallons) of barley mixed with 1.95 go (0.094 gallons) of rice a day.

The expenditure on rice and barley constitutes 61.9 per cent. of the total expenditure on food, 34.7 per cent. being spent on rice and 27.2 per cent. on barley. Only 8 per cent. is spent on animal food, that is fish, of which very little is eaten; and the same percentage is all that is spent on the vegetables, consumed in large quantities, which are very cheap. The following articles of consumption come next in order of the percentage spent on them: *miso*, 5.8 per cent.; pickles, 4.8 per cent.; liquor (*sake*) 0.6 per cent.; *shoyu*, 0.2 per cent.; sugar, 0.2 per cent. The total average cost of food per man per day is 12.1 sen. The same quantity of food would cost 14.3 sen in Tokyo.

These results are in agreement with those obtained by investigations in other districts. The statistics obtained in Shizuoka Prefecture shew that an average small farmer's family of 6.3 members there has an income

of 816.75 yen, and that its total cost of living is 334.9 yen or 42 per cent. of the receipts, the expenditure on food being 194.45 yen or 56 per cent. of the cost of living. The average cost of a family's food in six farming regions in the Aichi Prefecture is 213.68 yen or 63 per cent. of the cost of living. The Agricultural Association of Japan estimates that an average Japanese farmer's family spends 157 yen or 40 per cent. of the cost of living on food. Generally speaking, the whole cost of living of a small farmer's family is about 300 yen of which from 40 to 60 per cent. is spent on food.

SPAIN

THE UTILIZATION OF DESERTED CHILDREN FOR AGRICULTURE. — *Real orden circular del Ministerio de la Gobernación de 21 de junio de 1918, Gaceta de Madrid, 22 June 1918*

In view of the dimensions of the rural exodus from Spain, caused by the present attractiveness of manufacturing industry to labour and by the uncertainty which the high cost of living has brought into the lives of the poor, the Minister of the Interior has sent to governors of provinces a circular royal order which at once authorizes and invites the families of agriculturists filling certain conditions to take deserted children into their homes and teach them practical agriculture.

This measure aims at giving relief to necessitous children, at remedying to some extent the shortage of rural labour, and at settling in the country new elements of population, and increasing the rural population both immediately and prospectively.

The families of agriculturists to whom minors are thus entrusted must, in accordance with the order, fulfil the following conditions :

- a) The head of each family must preside over a legally constituted household ;
- b) The families must not suffer from any infectious disease ;
- c) They must have a reputation for good conduct ;
- d) They must have other resources than such as are granted them for the maintenance of the minor entrusted to them ;
- e) They must not already include more than four children ;
- f) No head of one of these families must be a widower when a deserted child is entrusted to him.

The provinces may draw on their revenues in order to make to agriculturists in humble circumstances who receive these children payments of no more than 20 pesetas a month, to cease when the children reach sixteen years of age and the value of their work may be taken to equal the cost of their maintenance. Prizes and certificates of merit will be given to the families who have accepted no payment for taking the children and who have given them most care and shewn most interest in their agricultural training.

As regards the work of minors, the order provides that the clauses of laws in force, and the existing prohibitions in the matter of work which may injure children's health, be observed. A strict supervision will further have to be exercised in order to prevent the children from being exploited, ill treated or badly brought up. For this purpose two members of the local council for the protection of childhood will frequently visit the minors placed in families, and inform themselves as to their conduct, their progress in work, and the teaching they receive in the households which shelter them. These visitors will report to the council on the inspections they make.

The order establishes, finally, that the provincial governors will advise the Ministry of the Interior within a month as to the number of families in each neighbourhood ready to receive children. In this way it will be possible to pass deserted children from provinces where their number is excessive to others in which there is a lack of them.

UNITED STATES

PRIVATE COLONIZATION IN WISCONSIN. — ELY (Richard T.) of the University of Wisconsin, in *The American Economic Review*, Vol. VIII, No. 3, September 1918.

To be successful private colonization must accomplish three purposes : it must afford a reasonable profit to the persons selling the land and financing the enterprise ; it must give the settler and his family an opportunity to work on the land, and gain a livelihood while working, to make a farm, and to acquire complete ownership thereof within a reasonable interval of time ; and it must enable each colony to advance the interests of society.

Three colonies in Northern Wisconsin, situated respectively at Conrath, in Rusk County and in Sawyer County, seem to satisfy these demands.

Great care was taken in selecting lands for them, and the attempt is made to secure only settlers capable of availing themselves of the opportunities offered them. An effort is made, moreover, to group settlers by nationalities, while providing them with a common centre where they meet and undergo the fusing process of Americanization.

Three plans are followed in making concessions of land :

1) The land is sold unimproved, but the colonizing company offers its services for the purchase of lumber, building supplies and live stock, which it furnishes to the settler at cost price, giving credit for them up to the amount of the first payment, and adding this to the price of the land. In other words, if a settler have to make a first payment of \$ 500, the company will invest an equal sum in the equipment of the farm.

2) Forty acres of land are granted, together with a one-storied house measuring 14 X 20 feet, a cow, a small pig, four chickens, mixed clover and timothy seed weighing one bushel, and assorted flower and vegetable seeds. The total cost varies from \$ 1,100 to \$ 1,350, and the

settler must make a cash payment of \$ 250. He can obtain further lots of 40 acres each, paying for each of them from \$ 750 to \$ 1,000.

3) Forty acres of land are granted with a house of one and a half stories covering 14 X 20 feet, a barn measuring 12 X 14 feet, seed as by Plan 2), a garden cultivator, a cross-cut saw, an axe, a brush scythe and a mattock. The total cost varies from \$ 1,250 to \$ 1,500 and the settler must make a cash payment of \$ 400. He can obtain further land as by Plan 2).

The company also sets up model farms in the colonies, and these not only provide demonstrations of farming methods but also give work to the settlers in their early days, enabling them to supplement the yield of a farm with earnings.

The company further sees that the settlers enjoy all the advantages to which they are entitled — good roads, schools, conveyances to take children to school, the telephone and the telegraph, and the service of county agricultural agents.

The plans for the latest settlement in Sawyer County include the building of a new city, regard being paid to aesthetic considerations as well as those of convenience.

The settlers in these colonies are encouraged to borrow money of the company in order to extend their activities, for instance for the purchase of cows. Sometimes the company furnishes a new settler with horse power before he is in a position to buy and keep horses himself. Finally, the company has organized cheese factories in the colonies.

The development of each farm is carefully followed by the company. On forms known as Settlers' Progress Record Cards the building accomplished, the area brought under cultivation and the area fenced, the number of cows, calves, horses, colts and pigs kept, the number of days' work done, the sum owed for stock and the sum owed to the bank, and the amount of the principal and interest of the purchase-price paid, are noted year by year in the case of every farm.

The following are data as to the average position of settlers in the best colonies in Wisconsin. The average was taken from figures supplied by seventy families.

Age of settler when land was bought	40
Number of children in his family :	3
Number of acres in his farm	60.5
Price paid per acre	\$ 23.80
Percentage of price paid in cash	22.2
Net worth at time of purchase	\$ 705.92
Annual increase in net worth.	556.20
Annual increase in value of land	88.05
Amount of mortgage (for 49 cases)	\$ 1,402.42
Average number of horses.	1.4
Percentage of acreage cleared	11.6
Percentage of acreage cultivated without removing stumps	18.4
Percentage of acreage improved	30

When a farm is settled to the point which gives it value as a security the company grants a title to the settler, who in return mortgages the farm. This mortgage may be for twenty years at 6 per cent., the interest and principal being payable by amortization. The Federal Land Bank of this district, which is situated at St. Paul, is rendering great service in furnishing the funds needed for land settlement. The clearing of land increases its value so rapidly that sometimes within three or four years the 50 per cent. of its value which a settler can borrow on his land and the 20 per cent. which he can borrow on his buildings from the Federal Land Bank are equal to, or even greater than, the amount of the original mortgage on the land. The burden of carrying the loan is thus transferred to the bank, and the settler has thirty-five years in which to pay for his land, interest being at the rate of $5\frac{1}{2}$ per cent. with an additional 1 per cent. for amortization. If the amount borrowed from the bank exceed the debt on the land, the settler has a surplus which he can use to buy stock or to improve the land.

It is probable that a colony of the description of these in Northern Wisconsin should extend over at least 20,000 acres, while it would have still greater chances of success if its area were 50,000 acres.

The newly organized American Association for Agricultural Legislation has recognized the need for studying land settlement and has appointed a committee having such duty. Investigations in Kansas, Arkansas, Washington, Ohio and Wisconsin have already been undertaken and there is every likelihood that they will be carried out in all the States of the Union.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Fifty-eight governments are now adherent to the Institute.

The Institute is a government institution in which each country is represented by delegates. It is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance, and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary measures for the protection of the common interests of farmers and for the improvement of their condition, utilising for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

PERMANENT COMMITTEE OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

President: Marquis RAFFABE CAPPELLI, Delegate of Italy.

Vice-President: M. LOUIS-DOP, Delegate of France.

List of the Delegates forming the Permanent Committee:

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2	ARGENTINE REPUBLIC...	I	Dr. OCTAVIO PINHEIRO SORONDO.
3	AUSTRIA	I	Chev. V. DE FOZZI, Government Councillor.
4	HUNGARY	I	O. BOLLE.
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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral aspent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown (100 heller) (Austria-Hungary)	=	10 <i>d.</i>	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1 <i>s.</i> 1 ¹ / ₅ <i>d.</i>	at par
1 Deciatine (2 tchetwert) (Russia)	=	2.69966	acres
1 Dinar, gold (170 para) (Serbia)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	4 <i>s.</i> 5 ¹⁵ / ₁₆ <i>d.</i>	at par
1 Drachm, gold (170 lepta) (Greece)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Egyptian Kanlar	=	99.0496	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1 <i>s.</i> 7 ⁵³ / ₆₄ <i>d.</i>	at par
1 Franc (100 centimes) (France)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Leu (100 statinki) (Bulgaria)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Lira (100 centesimi, Italy)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Litre	=	0.21948	gallons
		0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ <i>d.</i>	at par
1 Mark (100 penni) (Finland)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	2 <i>s.</i> 2 ⁶¹ / ₆₄ <i>d.</i>	at par
1 Milreis, gold (Portugal)	=	4 <i>s.</i> 5 ¹⁹ / ₆₄ <i>d.</i>	at par
1 Peseta, gold (100 centimos) (Spain)	=	9 ³³ / ₆₄ <i>d.</i>	at par
1 Peso, gold (100 centavos) (Argentina)	=	3 <i>s.</i> 11 ³⁷ / ₆₄ <i>d.</i>	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18 <i>s.</i> 0 ¹⁵ / ₆₄ <i>d.</i>	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold (100 kopeks) (Russia)	=	2 <i>s.</i> 1 ³ / ₈ <i>d.</i>	at par
1 Rupee, silver (16 annas) (British India)	=	1 <i>s.</i> 6 <i>d.</i>	at par
1 Talari (20 piastres) (Egypt)	=	4 <i>s.</i> 1 ¹¹ / ₃₂ <i>d.</i>	at par
1 Verst (Russia)	=	1156.64479	yards
1 Yen, gold (2 fun or 100 sen) (Japan)	=	2 <i>s.</i> 0 ³⁷ / ₆₄ <i>d.</i>	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
BUREAU, OF ECONOMIC AND SOCIAL INTELLIGENCE

INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

JAPAN.

THE POSITION OF CO-OPERATION IN 1916.

OFFICIAL SOURCE:

THIRTY-THIRD STATISTICAL REPORT OF THE DEPARTMENT OF AGRICULTURE AND COMMERCE OF JAPAN. TOKIO, 1918.

We have already reported the position of co-operation in Japan three times in this review. In September 1910 we published a detailed statistical report founded on the report which the Japanese Ministry of Agriculture and Commerce had published in the previous November. In January 1913 we showed the progress made from 1909 to 1911, and in November 1917 we described the condition of co-operation on 31 December 1915. This paper will explain the development since that date of the various institutions.

Let us recall that Japanese law divides co-operative societies into four classes :

a) *co-operative credit societies* which aim at procuring for their members the capital they need for their industry and at providing them, at the same time, with a means of effecting savings and practising thrift ;

b) *co-operative selling societies* which aim at selling the produce of the industry of their members, either undertaking the final process to which such produce is subjected or not ;

c) *co-operative buying societies* which aim at buying and at reselling to members the requisites of their industry and trade and also articles of primary necessity ;

d) *co-operative societies of production* which aim at applying the final process to the produce of their members, or at facilitating the employment of requisites by their members.

We should note that, in spite of this classification, the law allows one co-operative society to exercise several of these functions at the same time. The societies may have limited or unlimited or guaranteed liability.¶

§ 1. THE NUMBER OF CO-OPERATIVE SOCIETIES FROM 1907 TO 1916.

Bearing these facts in mind, we will rapidly review the increase in the number of co-operative societies from 1907 to 1916. The following table shows the number of societies of each kind on 31 December of each year:

Categories of co-operative societies	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916
Co-operative credit societies . . .	1,543	1,734	1,966	2,226	2,534	2,673	2,767	2,930	3,015	3,070
Co-operative selling societies . .	166	175	200	217	225	220	233	224	234	221
Co-operative buying societies . .	597	714	756	772	787	673	641	599	535	448
Co-operative societies of production	53	67	63	78	114	117	138	143	133	134
Co-operative societies of sale and purchase	363	419	460	503	535	510	491	498	461	462
Co-operative societies of production and sale	101	113	125	136	150	138	138	139	141	127
Co-operative societies of production and purchase	56	52	49	49	52	44	43	41	37	29
Co-operative societies of sale, purchase and production	112	170	214	222	234	245	241	242	230	195
Co-operative societies of credit and sale	13	21	30	381	395	384	376	370	400	370
Co-operative societies of credit and purchase	188	470	838	1,239	1,626	1,995	2,252	2,479	2,583	2,632
Co-operative societies of credit and production	3	7	10	14	15	27	32	37	39	53
Co-operative societies of credit, sale and purchase	135	321	702	1,062	1,459	1,948	2,232	2,461	2,608	2,795
Co-operative societies of credit, production and sale	1	1	4	14	22	38	59	73	90	117
Co-operative societies of credit, production and purchase . . .	3	11	19	26	40	45	45	46	57	56
Co-operative societies of credit, production, sale and purchase	29	116	254	369	475	626	765	878	946	1,044
Total . . .	3,363	4,391	5,690	7,308	8,663	9,683	10,435	11,160	11,509	11,753

As is seen, the co-operative movement, seen in its entirety, made continuous progress in the years considered. If we go into details we find that the same remark holds good for the cooperative societies of credit, of credit and purchase, of credit, sale and purchase, and of credit, production, sale and purchase, that is for the four categories of co-operative societies most numerous in Japan. It holds good also for the two small categories — the societies of credit and production and of credit, production and sale. The other categories show fluctuations, even sometimes a marked retrogression.

Thus the purchasing societies, which numbered 597 in 1907 and 787 in 1911, had afterwards a falling membership which was 673 in 1912, 641 in 1913, 599 in 1914, 535 in 1915 and 448 in 1916. And the co-operative societies of purchase and sale, which numbered 363 in 1907 and as many as 535 in 1911 had decreased by 25 in the next year and were only 402 in 1916.

We will now notice the distribution of co-operative societies in accordance with their form of organization, that is according to whether they have limited or unlimited liability or limited and guaranteed liability :

Categories of co-operative societies	Limited liability societies	Unlimited liability societies	Societies having limited and guaranteed liability	Total
Co-operative societies of credit . .	1,873	1,151	46	3,070
Co-operative selling societies . . .	190	19	12	221
Co-operative buying societies . . .	366	76	6	448
Co-operative societies of production	117	15	2	134
Co-operative societies of sale and purchase	292	97	13	402
Co-operative societies of production and sale	103	23	1	127
Co-operative societies of production and purchase	20	8	1	29
Co-operative of sale, purchase and production	146	41	8	195
Co-operative societies of credit and sale	332	36	2	370
Co-operative of credit and purchase	1,893	752	47	2,692
Co-operative of credit and production	30	19	4	53
Co-operative of credit, sale and pro- duction	1,857	868	70	2,795
Co-operative societies of credit, pro- duction and sale	110	6	1	117
Co-operative societies of credit, pro- duction and purchase	41	14	1	56
Co-operative of credit, production, sale and purchase	677	335	32	1,044
General total . . .	8,047	3,460	246	11,753

The predominance of limited liability societies, which constitute more than two thirds or precisely 68.4 per cent. of the total, is clear. Unlimited liability societies take a far lower place, constituting 29.4 per cent. of the total. The number of societies having limited and guaranteed liability is insignificant ; they constitute only 2.09 per cent. of the total.

2. THE ASSOCIATIONS OF PRODUCERS OF STAPLE ARTICLES.

These associations, which next invite our attention, aim at grouping individuals producing the same articles in order to protect them against evil trade practices and to spread the good reputation of their produce. For a certain time the associations were abolished, because they tended inevitably to become monopolists, but many of them were reconstituted in the last quarter of the nineteenth century, and in 1881 and 1882 rules for their control were promulgated by the prefectural administrations. The latter obtained however few results. The lack of measures of this kind was still felt, and therefore in 1887 the Ministry of Agriculture and Commerce published model rules for the collection of produce by associations of producers, and in 1891 rules for the control of these corporations. This control was not effective until 1897, when the government promulgated the law on associations of exporting producers which considerably strengthened the co-operative bond. The law aimed at preventing the production and export of goods of inferior quality and at ending evil trade practices, but the sphere within which it could be applied was very narrow and it was little adapted to existing needs. In 1900 a law was passed which really constitutes the charter of associations of producers. These may be formed only with the consent of two thirds of the producers of the district and the authorization of the Minister of Agriculture and Commerce. When once they are established all producers of the district must belong to them unless exempted by a decision of the minister. They have the right to form among themselves federations which are legal persons.

Most of these producers' corporations have a commercial or industrial character, but a fair number of an agricultural nature are found. Such agricultural associations were, at the end of 1916, the 251 associations of cocoon and silk producers which had 18 federations, the 60 associations and the federation of rice growers, the 37 associations and the two federations of merchants of carpenters' timber, the 34 associations and the federation of charcoal-burners, the 14 associations and the 3 federations of orange-growers, the 13 associations of sugar-refiners, the 13 associations of dairy-men, etc.

§ 3. THE AGRICULTURAL SOCIETIES.

Besides the co-operative societies and the associations of producers we ought to notice some great agricultural companies, numbering 485 at the end of 1916. The following table shows their objects and their financial importance :

	Number	Paid-up capital (yen)	Reserves (yen)
Reclaiming of wilderness and farm- ing.	72	15,318,903	2,218,456
Forestry	42	2,198,412	406,634
Nursery.	20	184,075	11,960
Sericulture	131	333,724	22,196
Stock and dairy farming.	81	1,046,527	36,141
Pisciculture	19	1,156,450	21,500
Fishery.	96	7,654,298	494,102
Whale fishing.	6	3,389,600	184,269
Various.	18	464,466	21,750
Total ^a . . .	485	31,746,455	3,417,008

From 1907 to 1913 these companies developed constantly. Since the outbreak of war some of them have disappeared, but the figures showing their paid-up capital reserve in 1916 greatly exceed those for 1913, and too much importance must not therefore be attached to the slight fall in their number.

Position of agricultural companies at the end of 1916.

Year	Various kinds of company	Number	Share capital yen	Paid-up capital yen	Reserves yen
1907	Joint stock cos.	133	—	10,117,215	311,052
	Ltd. liability cos.	125	—	1,613,278	69,680
	Unltd. liability cos.	51	—	334,699	6,393
	Total . . .	309	—	12,035,192	387,125
1908	Joint stock cos.	139	—	9,137,178	452,918
	Ltd. liability cos.	131	—	2,078,150	52,179
	Unltd. liability cos.	62	—	1,853,809	130,986
	Total . . .	332	—	13,069,137	636,083
1909	Joint stock cos.	155	—	10,547,284	337,281
	Ltd. liability cos.	138	—	1,596,130	52,943
	Unltd. liability cos.	76	—	1,609,408	204,575
	Total . . .	369	—	14,752,822	594,799
1910	Joint stock cos.	172	—	11,335,425	536,219
	Ltd. liability cos.	145	—	2,132,229	64,524
	Unltd. liability cos.	69	—	3,426,865	250,535
	Total . . .	386	—	16,894,519	851,278
1911	Joint Stock cos.	183	—	13,190,234	910,724
	Ltd. liability cos.	166	—	1,847,319	69,946
	Unltd. liability cos.	73	—	2,970,928	392,504
	Total . . .	422	—	18,008,481	1,373,174
1912	Joint Stock cos.	191	—	14,099,342	854,862
	Ltd. liability cos.	195	—	2,253,415	132,604
	Unltd. liability cos.	89	—	9,982,185	221,852
	Total . . .	475	—	26,334,942	1,209,318
1913	Joint stock cos.	198	—	19,401,866	1,116,125
	Ltd. liability cos.	196	—	2,329,750	112,637
	Unltd. liability cos.	102	—	5,919,496	269,908
	Total . . .	496	—	27,651,112	1,498,670
1914	Joint stock cos.	198	—	20,826,692	1,401,884
	Ltd. liability cos.	202	—	2,892,257	70,561
	Unltd. liability cos.	91	—	3,516,448	316,153
	Total . . .	491	—	27,235,397	1,788,598
1915	Joint stock cos.	202	32,510,077	18,510,820	1,406,029
	Ltd. liability cos.	195	3,053,030	2,705,069	82,890
	Unltd. liability cos.	95	10,533,027	10,520,418	2,342,514
	Total . . .	492	46,096,134	31,736,307	3,831,433
1916	Joint stock cos.	186	30,956,095	19,197,924	948,437
	Ltd. liability cos.	201	3,154,780	2,798,014	407,640
	Unltd. liability cos.	98	9,796,123	9,750,517	2,060,931
	Total . . .	485	43,906,998	31,746,455	3,417,008

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

ALGERIA.

NATIVE AGRICULTURAL SOCIETIES. — *L'Afrique Française*, Paris, September and October 1918.

The Director of Agriculture, M. Brunel, working with M. Rolland, inspector of native agricultural education, is endeavouring to form native agricultural societies (*djemâa-el-fellahia*) of which the object will be to give to cultivators having the necessary knowledge of agriculture regular habits of work and the means to carry on scientific cultivation.

The contemplated organization groups a certain number of fellahs under a directing council composed of administrators and agriculturists both European and native. This council determines the time and the depth of ploughing, the selection and the dipping in sulphate of seeds, the utilization of manures, and weeding, harvest, threshing, etc. Members engage to follow the rules fixed in a book of charges, and a director of cultivation insists, on pain of penalties, that cultivation be effected in accordance with these rules.

In return, members receive the advances (seed and live and other stock, etc.) necessary to enable scientific cultivation. These advances, which are always repayable, are made with the funds of the native thrift societies, the funds of the *douars* and the grants of the administration. They are remitted to the persons interested who must pay them at once and in their entirety into the fund of the *djem-el-fellahia*. The fellahs thus receive a technical education and become accustomed to administering their society. They naturally are interested in the distribution of profits which must ensure the repayment of advances and the institution of a common fund and a reserve fund. The common fund guarantees the complete repayment of advances and allows the purchase of the agricultural material of which common use can be made. The reserve fund serves to give relief to agricultural societies which, by their misfortune or other causes, are in need of help; and it also is a guarantee that the working of these societies will have sequence.

The first *djemâa-el-fellahia* was organized in the commune of the Eulmas among the Ouled Sabor: 900 hectares divided into lots of 60 hectares each were let at the rate of 6 francs a hectare. Each lot is granted to two landless natives who also receive 5,000 francs in repayable advances, representing a plough costing 400 francs, four oxen, two mules and a harrow. An equal sum is allotted to them for the purchase of seed and fodder. Other analogous agricultural societies will be beginning their activities when these lines appear in print.

The formation of native agricultural societies has two objects, that of developing and, especially, improving cultivation, and of thus increasing the yield of the lands cultivated by natives, and that of ensuring a better employ of local funds, notably the funds of native thrift societies which, if distributed in insufficient sums, too often find their way to the usurer.

AUSTRALIA.

THE WESTRALIAN FARMERS, LTD. — *Directors' Report and Balance Sheet of the Westralian Farmers, Ltd., year ended May 31st., 1917. Perth.*

Although it was formed only shortly before the outbreak of the war and its development has consequently been retarded by the abnormal conditions prevailing, the Westralian Farmers, Ltd., has made very substantial progress, notably in regard to the co-operative sale of agricultural produce. Acting as agents for the Government of Western Australia under their scheme for the acquiring and shipping of wheat, the company handled in the 1916 season 1,954,540 bushels, out of a total of 14,946,318 bushels for the State. In the 1917 season the company received 5,153,550 bushels, worth £1,030,710, out of a total quantity of 13,665,000 bushels. The company, regarding itself as a trustee for the farmers, took every possible precaution to safeguard the wheat handled. Every stack under its control was roofed with iron and screened on all sides and the company's representatives were constantly at work repairing the bags.

A considerable trade is done by the company in the supply of corn sacks. Owing to the fluctuations in the jute market this is a difficult business, and though in the business year 1916-17 the company provided for a considerable increase on the sales of the previous year, their early shipment (booked at very favourable rates) was soon exhausted and further purchases had to be made on a rising market. It was mainly due to the persistent representations made to the government of Australia through the instrumentality of the company, that the 10 per cent. duty imposed in 1914 on corn sacks imported from India was abolished.

The company has taken over the sole agency for the distribution of the machinery and other requisites manufactured by the State Implement Works of Western Australia — an arrangement which, in the words of the report for the year 1916-17, "combines all the advantages of public ownership and co-operative distribution." It is anticipated that the company will also be able to get into touch with implement manufacturers in other countries and that this branch of its business will develop rapidly.

Agricultural insurance is another important branch of the company's business which has become firmly established. Already the company is handling a very large percentage of the agricultural insurances of Western Australia. A reduction of about 20 % on the previously existing rates has been secured and a further reduction is anticipated.

The nominal capital of the company is £60,000 divided into shares of the value of £1 each. On May 31st., 1917, 32,821 shares had been issued. Of these a small number were fully paid, but on the great bulk of the shares calls have only been made up to 7s. 6d. Allowing for arrears in payment of calls, the paid up share capital was £9,788.

The profit in 1916-17 was £12,757 as compared with £5,260 in 1915-16.

Contrary to the practice in most countries, agricultural co-operation in Western Australia has begun by the establishment of a central body and has proceeded, by a process of decentralization, to the formation of local societies.

The report for 1916-17 of the Westralian Farmers, states that about sixty local co-operative companies either had been formed or were in process of formation under the auspices of the central company.

"The scheme of decentralization," says the report, "brings the practice of co-operation right home to the farmer on his holding. It makes co-operation possible in every line of business — importing, exporting, wholesaling and retailing. The individual farmer, holding a share in his local co-operative company, participates in the profits arising out of the primary handling and retailing of his products and supplies. Further, through his Company's share, or his own share, in the Central Company, he participates also in the exporting and importing profits made on handling those same products and supplies."

HUNGARY.

CO-OPERATION IN HUNGARY IN 1916 — *International Co-operative Bulletin*, 11th year, No. 9, London, September 1918

The Union of Hungarian Co-operative Societies groups all the co-operative societies in Hungary. They included in 1916 the National Central Credit Society which had 2,425 members; the Union of Distributing and Selling Societies or the *Hangya* which comprised 1,386 societies; the Central Organization of Christian Societies which had 470 members; the Hungarian Mutual Insurance Company which included 800 societies; the Union of Raiffeisen Societies of Siebenburgen which included 184 Raiffeisen, 59 distributing and 9 other co-operative societies; the Society of Serbian Agricultural Societies which had 367 members; the Central Organization of Fruit Selling Societies and Co-operative Distilleries or the *Fructus* which had 300 members. Altogether 6,072 societies were affiliated to the Union.

In the summer of 1916 a law was passed which forbade any but large societies to manufacture alcohol. Small farmers therefore found themselves compelled either to cease distilling or to unite to form co-operative distilleries. By the end of the year 350 co-operative distilleries existed, but this number was reduced to 300 by amalgamation. It was only the effective help of the union that made such rapid development possible. With

the aid of the State a central co-operative organization, the *Fructus*, was created. It comprises all the co-operative, communal and government distilleries. Its aim is to represent the interests of the societies, to form and organize new societies, to help them in their initial stages, and to help credit and trading transactions. All distilleries, co-operative, communal and governmental, must be members of the *Fructus*.

• NORWAY.

THE WHOLESALE SOCIETY OF THE AGRICULTURAL SOCIETIES IN 1917. — *International Co-operative Bulletin*, London, October, 1918.

Agricultural co-operation in Norway is making rapid progress. The Wholesale Society of the Agricultural Societies (Landhusholdningselskabernes Faelleskjøb) increased its turnover in 1917 by 5 $\frac{1}{2}$ million crowns, from 16,700,000 crs. to 22,377,000 crs. In the year 1913-14 the corresponding amount was only 7,702,507 crs. The Wholesale Society supplies its affiliated societies, numbering 859 and having a membership of 28,854, chiefly with feeding stuffs, manures, machinery, etc. During 1917 the turnover of feeding stuffs somewhat declined, owing to difficulties of transport whilst that of manures increased from 19,400 tons to 34,200 tons. The seed department had to contend against many difficulties. The increase by 50 per cent. of the turnover of the agricultural machinery department is no doubt due to enhanced prices.

On 1 January the Wholesale Society took over the machinery factory "Globus" at Bremensdal. This is situated near a railway and river and has good railway connections with the whole country. The Society also owns a mill and silo at Kambo, valued at 1,869,000 crs., which began activities on 20 April 1917, and in spite of all difficulties have made satisfactory progress. The net surplus of the society amounted to 348,170 crs.

RUSSIA.

THE ALL-RUSSIAN CENTRAL ASSOCIATION OF FRUIT GROWERS AND MARKET GARDENERS. — *The Russian Co-operator*, Vol. 2, No. 11, London, October 1918.

Last April a new central co-operative organization was formed at a conference held at Moscow. The conference was attended by representatives of twenty co-operative societies interested in the sale and treatment of fruit and vegetables, and by delegates of the council of the All-Russian Co-operative Congresses, and of the Moscow Narodny Bank which was chiefly responsible for its convocation.

It decided on the formation of the new organization which should aim principally : a) at promoting and regulating the marketing of raw and

treated fruit and vegetables ; b) at helping individual growers to follow better methods when drying and preserving fruit and vegetables ; and c) at helping co-operative societies of fruit and vegetable growers to obtain seeds, manures and other material necessary to them.

The conference was also attended by some representatives of consumers' credit societies and agricultural societies in districts in which horticulture is important but horticulturists have not yet formed their special organizations. The following provinces were thus represented : Jaroslav, Kostroma, Vladimir, Kaluga, Nijni-Novgorod, Rjazan and Tambov. Among the most important horticultural organizations represented were the Rostov (province of Jaroslav) Union of Market Gardeners, which groups 22 associations for drying vegetables and one for producing chicory, the Murom Union of Vegetable Growers, and many artels which dry and preserve fruit and vegetables.

Practically all the societies which took part in the conference decided to join the new association and subscribe for its shares. The Moscow Narodny Bank acquired 1,000 shares valued at 250,000 roubles ; and the Jaroslav Union of Credit Associations subscribed for 100 shares.

The conference elected the board and council of the new association.

Of the various kinds of work the association undertakes it attaches special importance to that of promoting and co-operatively organizing the drying and preserving of vegetables. In Russia this industry has almost entirely originated during the war. Before the war the country produced only from 3,000 to 3,500 tons of dried vegetables in a year. In 1917 the industry was being practised in sixteen provinces, particularly in the Rostov district of the province of Jaroslav, and brought into the market more than 15,000 tons of dried fruit and vegetables.

It was estimated that the harvest of 1918 would enable the new association to market more than 2,000,000 roubles' worth of vegetables, that of 1919 more than 41,000,000 roubles' worth.

The association charges its members a commission of 2 per cent. on its sales on their behalf, and 5 per cent. on its purchases for them of various implements and requisites. These charges provide a capital for covering expenses.

UNITED STATES.

THE MARKETING ORGANIZATION OF CREAMERIES IN WISCONSIN AND MINNESOTA. — POTTS (Roy C.) in Bulletin No. 69, of the United States Department of Agriculture, 23 July 1918.

The methods employed in selling milk and cream to creameries have been markedly changed of late years. Before cream separators were generally used on farms practically every creamery obtained its supply of raw material from farms in its own neighbourhood or from skimming stations reached by waggon routes. Reports obtained in 1915 from 900 creameries in Wisconsin and Minnesota showed that only 27 of them received

only whole milk, while 243 received both milk and cream and 630 separated cream only.

Usually local co-operative creameries required a farmer either to pay the costs of collecting the milk or cream or to pay the costs of delivering it in person or otherwise. Reports from 127 creameries in Wisconsin showed that 71 included the cost of collection in working expenses while 54 charged the supplier with it and two combined these two methods. The cost of collection varied from 0.5 to 4.6 cents per pound of butter fat, averaging about 1.7 cents.

In some creameries suppliers usually delivered their cream once in two or three days but in some only once a week.

The average cost of transporting cream by railroad to 40 centralizing creameries was reported to be 1.63 cents per pound of butter fat. This did not however include costs of collection or of delivery at the receiving or consigning station.

The infrequent deliveries of cream to creameries brought about the marketing of a considerable quantity of cream of inferior quality. Therefore about 15 per cent. of the creameries of Minnesota which reported as to this point had adopted a system of grading cream. Usually two grades were set and a premium of 2 or 3 cents per pound of butter fat paid for the better grade. Many creameries reported that they were in favour of grading and intended to practise it.

It is the usual practice of the co-operative creameries of Wisconsin and Minnesota to divide net receipts among suppliers in proportion to the amount of butter fat each has supplied. About 80 per cent. of those in Minnesota paid their suppliers once a month and 15 per cent. twice a month. The non-co-operative creameries of Minnesota were about equally divided as regarded their practice of paying once a month, twice a month or at the time of delivery. Of 250 creameries in Wisconsin 48 per cent. paid monthly, 39 per cent. twice a month, and the rest either every two weeks or every week. Nearly all the centralizing creameries paid for each consignment of cream as it was received.

It was found that skimmed milk was usually returned to suppliers who had delivered whole milk at the rate of about 80 per cent. of the amount of whole milk delivered. As to buttermilk, the country creameries usually contracted to sell it to a supplier or other regular buyer at 10 cents a can or 1 to 1 ½ cents a gallon. Creameries in large towns often sold it to hotels and other businesses at from 2 to 10 cents a gallon.

Ice-cream was manufactured as a by-product in about 20 per cent. of the creameries in Wisconsin and 2.1 per cent. of those in Minnesota.

Butter was usually sent to market, weekly or twice a week as provided by agreements, in refrigerator cars. About 90 per cent. of the creameries used ice rather than any mechanical means of refrigeration, for the sake of cheapness.

The various buyers of creamery butter may be divided into consumers, retailers, jobbers and wholesale dealers. About 4 per cent. of the butter produced by creameries in Wisconsin and 6 per cent. of that produced in

Minnesota was sold to the suppliers of the cream. Of these nearly all in the case of some creameries obtained their butter from these creameries, but in the case of others the sales to suppliers were limited. Of the total amount of butter produced in Minnesota less than 7 per cent. was sold to retailers, in Wisconsin about 15 per cent.

The towns to which butter was mainly consigned to wholesale dealers were Chicago, New York, Boston and Philadelphia, which received about two thirds of the butter produced in the two States. Chicago received about one half of Wisconsin's butter and less than 15 per cent. of Minnesota's; while over one half of Minnesota's butter and less than 10 per cent. of Wisconsin's were marketed in New York City.

Generally speaking, Wisconsin and Minnesota creameries when marketing "tub" butter or butter in casks consigned it to wholesale receivers: about 80 per cent. of the Wisconsin creameries received the prices quoted in Elgin, 16 per cent. those quoted in Chicago and 4 per cent. those quoted in New York, while the Minnesota creameries consigning to New York generally agreed for the prices quoted in New York. Agreements frequently varied, being for market quotations net f. o. b. at the consigning or receiving station, for market quotations plus a premium and less freight, less freight and cartage or less freight, cartage and commission. It is estimated that about 15 per cent. of the creameries of Minnesota sold their butter f. o. b. at the shipping station, while 85 per cent. had freight charges deducted and 37 per cent. were charged a commission.

Frequently the creameries forwarded their consignments on order bills of lading and drew a draft on the consignee which was passed to the local bank to be collected or credited. When a draft payable at sight or on demand is used it is attached to the original copy of the order bill of lading. It usually covers from 60 to 75 per cent. of the value of the consignment.

It was found that creamery butter was distributed in the wholesale market as follows. When a freight consignment reached the terminal market notice was sent by railroad to the consignee. The butter was taken to the receiver's salesroom in trucks, weighed and inspected. During the season of large production, between 1 April and 1 September, that quantity received in the market which did not immediately pass to the consumers was placed in cold storage by the receiver or by other buyers. Rates charged for storage varied with the time for which butter was stored but were about $\frac{3}{4}$ cent per pound for six months. As a temperature of 0°F or less was maintained in the storerooms the quality of the butter usually deteriorated little. Stored butter was usually insured for about 80 per cent. of its value at a cost varying from 60 cents to \$1.50 per \$100 with the construction of the storerooms. Warehouse and insurance certificates were used as collateral security for obtaining loans on stored butter, on which the usual rate of interest was 6 per cent. The largest quantities were placed in storage in May, June and July, and the largest quantities withdrawn between 1 September and 1 April. Usually the storerooms neither bought nor sold butter. The following were found to be the usual

margins on "tub" butter when it passed directly from wholesale receiver to jobber, jobber to retailer, and retailer to consumer.

Wholesaler's gross margin.	$\frac{1}{2}$
Jobber's " " 	$1\frac{1}{2}$
Retailer's " " 	4
	<hr/>
Total	6

The comparative ease with which creameries have been able to contract for supplies and sell their butter to wholesale dealers has rendered the employment of expert salesmen unnecessary. Generally they have been well satisfied with their profits and therefore they have not felt strongly the necessity for co-operation, and efforts to organize them into co-operative marketing federations have not met with much success. The present increasing demand for butter bearing manufacturer's brands, or even, in the case of Minnesota, Michigan and Iowa, State brands, and for butter of uniform quality consigned by carloads, suggests however that there is a need for co-operation among the country creameries.

Part II: Insurance and Thrift

SWITZERLAND.

INSURANCE AGAINST MORTALITY AMONG LIVE STOCK IN 1916.

OFFICIAL SOURCE :

RAPPORT DU BUREAU SUISSE DES ASSURANCES SUR LES ENTREPRISES PRIVÉES EN MATIÈRE D'ASSURANCE EN SUISSE EN 1916 (*Report of the Swiss Insurance Office on Private Insurance Enterprises in Switzerland in 1916*). Berne, 4^e, 1918.

Our readers know that insurance against mortality among live stock is in Switzerland both the object of private enterprise and a matter undertaken by cantonal funds with which, in many cantons, owners are legally obliged to insure their stock. We will examine the activity in 1916 of the private insurance societies as this appears in the official report.

Three mutual societies, namely the *Mutuelle chevaline suisse* of Lausanne, the *Badische Pferdeversicherungsanstalt G.* of Karlsruhe, the *Garantie fédérale* of Paris and a stock company, the *Perleberger Versicherungs Aktien-Gesellschaft* of Perleberg (Prussia), did business in Switzerland in 1916, as in 1915, in insurance against mortality among live stock. The two first-named insure only horses, the others cattle and sheep also.

Generally speaking, it may be said that the business of these four societies in 1916 was satisfactory. Receipts in the form of premiums were about equal to those of the preceding year, while indemnities paid in the case of casualties slightly diminished.

As regards the business of these societies in Switzerland particularly, the influence of the war has caused a new fall in the amount of insured values. If we also take into account the noticeable increase in the value of the insured animals, a considerable decrease in the number of heads of live stock insured must be deduced. It is to be presumed that it is the insurance of horses which has suffered most. The importation of horses has almost totally ceased. On the other hand it has often been possible to repair losses to the stock of horses only with very imperfect material, owing to the constant rise in market prices. Receipts in the form of Swiss premiums did not however decrease constantly as did the insured sums but increased a little, a fact which proves that the societies have been able to adapt themselves to the new circumstances of the time. We must also note that the indemnities paid insured persons in Switzerland lessened considerably as compared with those paid in the three preceding years. But this decrease

could not be more than apparent. If we look more closely at the causes of losses affecting horses we are struck by the small number of animals who were recognized to be unfit to go on working. It may be concluded that the horses must have been employed much more intensively than previously, a consequence of the lessened number of horses and cattle on the one hand and the great difficulty, due to exorbitant prices, of replacing them. Thus use is still made of many horses which would not have had, in normal times, the qualities needed for the work expected of them. It follows, none the less, that sooner or later indemnities will have to be paid for these animals.

The development of the insurance of live stock in Switzerland in the five years from 1912 to 1916 is resumed in the following table :

Years	Insured sums	Premiums	Losses	
			Amount	Percentage of premiums
1912	16,102,975	635,972	482,211	75.8
1913	17,573,550	638,318	541,145	84.8
1914	19,540,527	608,295	486,023	79.9
1915	13,282,799	519,364	481,580	92.7
1916	12,271,538	525,025	399,507	76.1

As regards the financial results obtained by the various societies in 1916, we will give data only as to the business affecting Switzerland. To allow them to be gauged we will place data referring to the four previous years in juxtaposition with them.

In an article published in our issue for December 1917 we stated, in speaking of agricultural insurance in Switzerland in 1915, that the *Mutuelle chevaline suisse* was obliged, for the first time since it was founded in 1901, to apply Article 16 of its by-laws and to insist that its members should pay an additional premium of 30 per cent. This extraordinary payment was enough to cover the excess of expenditure in 1915 which reached 57,929.10 francs. The year 1916 showed a far better result. The society was then able to remit to those of its insured who suffered losses the amount fixed by contract, namely 75 per cent. of the estimated value of the animal, without having to levy an additional premium. The insured have to assume a risk corresponding to the remaining 25 per cent., the society inciting its members by this device to see that insured horses receive proper upkeep and care.

The field of the *Mutuelle chevaline* is confined to Switzerland. This society obtained the following results from 1912 to 1916:

Years	Numbers of insured horses	Insured sums	Premiums received	Losses paid
		— Francs	— Francs	— Francs
1912	7,277	7,138,880	226,846.30	201,082.50
1913	7,644	7,505,335	241,129.55	225,105.00
1914	7,215	7,075,835	240,876.75	230,274.65
1915	6,853	6,791,110	221,605.55	238,148.15
1916	6,402	6,514,430	250,914.75	200,943.90

We have already explained the reason of the marked decrease in the number of insured horses and the less decrease of insured sums, together with the notable increase in receipts in the form of premiums. It should however be remembered that this last item had previously suffered two successive diminutions. The great improvement when the business of 1917 was wound up should be attributed, in the first place, to the increased profits derived from carcasses of animals. The society insists on the importance of slaughtering at the right moment, for every time a horse dies and its carcass cannot be utilized an important loss is incurred. It is moreover to the interest of insured persons not to delay in giving that immediate notice of the illness of their horses which is incumbent on them.

Costs of administration had been falling for several years but rose again in 1916. If the entrance fees of insured persons be left out of account, these costs formed from 1912 to 1916 the following percentages of premiums received :

<u>1912</u>	<u>1913</u>	<u>1914</u>	<u>1914</u>	<u>1916</u>
20.3	20.1	19.0	18.5	19.0

The balance of receipts in 1916, 2,681 francs, was paid into the reserve fund.

The *Badische Pferdeversicherungsanstalt auf Gegenseitigkeit* also ended the year 1917 very satisfactorily. As in the eighteen preceding years this society could not do without levying a supplementary premium in the "insurance for members" category. Non-members pay fixed premiums, signing contracts especially for short-term insurance — transport, reinsurance, insurance of mares carrying foals, insurance of military horses during manœuvres, insurances of horses and cattle sent to pasturage, etc. This society also limits its engagement to indemnify for losses, repaying only 80 per cent. of the value of an insured animal which dies by an accident, or 70 per cent. of that of one which has to be slaughtered or becomes quite unfit for the work it ought to do by the terms of the insurance contract.

The most important category of this society's business is that of insurance for members. Unfortunately the place occupied by this insurance in relation to all business done is not exactly noted. It stood as follows at the end of each year from 1912 to 1916 :

<u>Years</u>	<u>Members</u>	<u>Horses insured</u>	<u>Sums insured</u> <u>—</u> <u>Francs</u>
1912	14,885	21,481	23,584,041
1913	15,251	21,956	24,336,610
1914	14,227	13,653	15,381,183
1915	11,196	11,052	14,234,183
1916	10,031	11,027	16,954,768

While the membership fell by 1165 and the number of horses by only 25, the insured sums increased by 2,720,585 francs. But if the sum insured on 31 December 1916 be compared with that insured on 31 December 1913, it will be found that it does not constitute even seven tenths thereof.

By provisions of the by-laws this society must pay half its entrance fees into the reserve fund, as well as the interest on the previous year's reserve fund and any profit which may accrue from the liquidation of losses in that year. In 1916 it was possible thus to pay 45,028.35 francs into the reserve fund as against 30,413.81 francs in 1915. Further, the balance of receipts amounting to 140,770.18 francs could be added, so that at the end of the year the reserve fund reached the sum of 707,319.20 francs. The rate of administrative costs diminished: these costs formed from 1912 to 1916 the following percentages of premiums received:

<u>1912</u>	<u>1913</u>	<u>1914</u>	<u>1915</u>	<u>1916</u>
19.0	19.4	21.2	23.4	20.9

The following figures show the state of this society's securities from 1912 to 1916.

<u>Years</u>	<u>Insured sums</u>	<u>Gross premiums</u>	<u>Gross losses</u>	<u>Percentage of premiums</u>
	<u>Francs</u>	<u>Francs</u>	<u>Francs</u>	
1912. . . .	2,768,073	136,025	122,584	90.1
1913. . . .	2,605,470	137,385	127,260	92.6
1914. . . .	2,450,782	129,447	98,562	76.2
1915. . . .	2,270,044	117,603	100,870	85.8
1916. . . .	2,206,268	115,438	97,934	78.8

It is seen that from 1913 onwards both insured sums and premiums received diminished. The proportionate amount of premiums to losses slightly improved in 1916 but did not reach its level of 1914.

* *

The *Perleberger Versicherungs-Aktion-Gesellschaft* was until 1911 a society mutual in form. From the first years of its activity the insurance of butchers' live stock and of the transport of live stock had a preponderant part in its business. These short-term insurances could be effected only by means of fixed premiums, and therefore the enterprise was transformed into a limited liability society. Thenceforward the *Perleberger Versicherungs-Aktion-Gesellschaft* undertook only insurance for fixed premiums.

In spite of the war the society's general business was satisfactory in 1916. The following table shows the number of insured animals and the amount of insured sums from 1913 to 1916:

Years	Numbers of insured animals	Insured sums — Francs
1913	1,469,294	378,784,142
1914	1,446,021	377,436,166
1915	1,168,476	379,322,664
1916	1,120,004	594,177,576

In spite of the constant fall in the number of insured animals, the amount of insured sums increased greatly in 1916. We have already noticed this phenomenon which is an essential result of the enormous increase in the value of the animals.

The year 1916 closed with a profit of 219,552.88 francs as against one of 461,276.87 francs in 1915. After paying 106,194.35 francs into special reserves the society could distribute a dividend of 10 per cent. to members, as in the preceding year.

The *Perleberger Versicherungs-Aktien-Gesellschaft* concluded no new insurance in Switzerland in 1916. In 1913 it had begun to develop the insurance of butchers' live stock in this country, but it abandoned this business at the end of 1914, probably because the year had closed leaving its Swiss insurance in an unfavourable state, as follows :

Years	Insured sums — Francs	Premiums paid — Francs	Losses indemnified — Francs
1913.	1,659,800	4,900	5,286
1914.	5,297,190	30,409	32,348

We have still to comment on the results obtained by the *Garantie fédérale* of Paris, a mutual society having fixed premiums and therefore unable to levy additional premiums. In view of its lack of share-capital and of reserves sufficient to form a security in unfavourable years, the indemnities are necessarily subject to very marked oscillations. In bad years, when the reserve fund accumulated in several years does not suffice to cover the balance of expenditure incurred in the unfortunate period, the two other mutual societies divide the deficit equitably among all the insured. The *Garantie fédérale* follows quite another procedure, for it is not the insured persons who have suffered losses who ought to bear the results of the society's ill fortune if the principle of a community of risks is to be observed. The *Garantie fédérale*, moreover, limits its engagements in case of losses. It pays an indemnity equal at the most to 80 per cent. of the value of the animals as this value is fixed by experts when the loss is incurred. Thus in every case the owner of an animal is himself the insurer of 20 per cent. of its value. Indemnities paid hitherto are in fact rather inferior to the fixed maximum of 80 per cent. than otherwise.

The *Garantie fédérale* is divided, in so far as collection of premiums, payment of damages and the constitution of reserves are concerned, into as many independent sections as there are countries in which it is active. In France the damages paid from 1912 to 1916 were equal to the following percentages of estimated values:

	1912	1913	1914	1915	1916
	%	%	%	%	%
Horses . . .	18	72	72	72	64
Cattle	80	80	72	72	72
Sheep	60	80	72	72	72

In Switzerland conditions were no better, the corresponding percentages being as follows:

	1912	1913	1914	1915	1916
	%	%	%	%	%
Horses . .	57.6	52	56	60	60
Cattle . . .	57.6	54.4	60	80	80

Only the damages paid in cases of casualties among sheep attained the regular rate contracted for in 1914 and 1916. It may be inferred that mortality has not risen during the war.

The high rate of the costs of administration of this society explains the inadequacy of the damages it can pay. On the whole of its business in 1916 damages constituted 47 per cent. of the premiums received.

The following figures show the development of the business of the *Garantie fédérale* in Switzerland:

Years	Numbers of insured animals	Sums insured	Gross premiums	Gross damages
—	—	— Francs	— Francs	— Francs
1912. . . .	7,166	6,801,065	273,100.10	182,751.92
1913 . . .	6,477	6,101,815	254,903.25	215,011.10
1914 . . .	5,116	4,869,985	207,563.00	164,767.95
1915 . . .	4,237	4,221,645	180,155.55	142,561.45
1916 . . .	3,731	3,550,840	158,671.45	107,629.65

We would give only an incomplete idea of the present state of insurance against mortality among live stock in Switzerland if we did not mention the numerous funds which practise this insurance without being subject to the control of the Confederation. They exist in nearly all the cantons. We should recall that when a canton or an association of owners of live stock

declared insurance to be compulsory within a determined territory, such as a commune, a district or a canton, the Confederation, by the terms of the *federal law of 22 December 1893 as to the improvement of agriculture by the Confederation*, made through the medium of the cantons grants equal to those which the cantons themselves made to the insurance funds. In execution of the decree of the Federal Council of 30 October 1914, as to fixing the federal grants in favour of insurance against mortality among live stock, these grants have been limited to a fixed sum per head of stock. Thus the decree cited provides that the Confederation do not allot more than one franc per head of large stock and 40 centimes per goat insured. Grants of this kind have been made by seventeen cantons and half-cantons. The appended table, taken from the reports for 1917 of the Swiss Department of Public Economy, gives data as to the importance of the insurance and the amount of the grants of cantons.

This table shows that in 1916 the cantons subsidized insurance against mortality among live stock to the total extent of 1,037,937.59 francs or 1.21 francs per head of insured stock. The Confederation also made an average allotment of 0.97 francs per head of large stock and 0.36 francs per goat, that is altogether an average allotment of 0.95 francs per head of stock, and it thus incurred a total expenditure of 815,389.38 francs.

Grants made to insurance against mortality amongst live stock in 1916.

Cantons	Animals insured	Number of casualties	Indemnities		Cantonal grants		Federal grants
			total	per casualty	total	per head of stock	
			fr.	fr.	fr.	fr.	fr.
1. Zurich	{ Large stock Small stock	3,799 488	653,868.00 14,144.30	172 — 29 —	184,533.13 3,108.37	1.59 0.42	114,420.00 4,931.20
2. Berne	{ Large stock Small stock	5,272 161	746,844.77 3,697.24	142 — 24 —	196,758.00 448.00	1.00 0.20	196,758.00 448.00
3. Uri	12,436	349	60,115.01	172 —	30,093.01	2.43	124,956.00
4. Glaris	12,401	445	71,397.19	160 —	20,000.00	1.61	134,401.00
5. Freiburg	78,132	1,971	153,447.63	78 —	62,531.60	0.80	62,531.60
6. Solothurn	43,115 7,170	1,087 409	120,673.26 8,783.46	111 — 21 —	43,113.00 2,151.00	1.00 0.30	43,113.00 2,151.00
7. Basle-town	1,636	54	9,202.50	170 —	4,773.50	2.92	1,636.00
8. Basle country	20,213 455	386 25	51,621.26 747.75	88 — 30 —	20,213.00 181.00	1.00 0.40	20,213.00 182.00
9. Schaffhouse	12,431 2,093	345 169	85,623.70 5,033.54	248 — 30 —	21,371.58 1,257.26	1.72 0.60	12,431.00 837.20
10. Grisons	76,670	2,003	336,135.33	268 —	150,997.33	1.96	76,519.00
11. Argovia	78,508 7,663	2,169 489	180,572.77 9,058.94	83 — 19 —	78,401.50 3,812.75	1.00 0.50	78,401.50 3,050.20
12. Thurgovia	57,048 10,436	2,102 501	317,409.47 41,679.12	122 — 223 —	57,048.00 6,826.58	1.00 0.50	57,048.00 8,218.00
13. Tesin	7,680	187	41,679.12	223 —	6,826.58	0.89	6,826.58
14. Vaud	51,680	1,341	241,219.32	180 —	77,520.00	1.50	51,680.00
15. Valais	32,785	594	95,216.20	160 —	32,785.00	1.00	32,785.00
16. Neuchâtel	9,936	227	30,081.16	133 —	12,318.78	1.24	9,936.00
17. Geneva	8,693	287	50,147.95	175 —	22,182.00	2.00	8,693.00
Total	890,729 26,971	23,379 1,741	3,445,265.04 441,663.33	147.74 23.93	1,026,980.01 169,957.58	1.24 0.41	805,766.68 9,019.00
	1916	25,060	3,486,930.27	139.14	1,037,937.59	1.21	81,538.98
	1915	26,755	3,421,621.59	127.89	1,021,964.31	1.23	791,547.10
	1914	28,729	4,274,994.35	148.80	1,104,032.34	1.20	1,004,681.05

Part III: Credit

UNITED STATES.

AGRICULTURAL CREDIT AND LIFE INSURANCE COMPANIES.

SOURCE:

WIGHT (George T) : Abstract of his report on "Life Insurance Farm Mortgage Investments in War Time" in *The Economic World*, New York, 31 August and 7 September 1918.

The demand for credit which has ensued on the intensification, by reason of the war, of agricultural production in the United States, has been satisfied from various sources — Federal Reserve Banks, local banks and associations, and, to a very large extent, life insurance companies.

We have already noticed, more than once, the increasingly marked tendency shown by American life insurance companies to invest their available funds in rural mortgages instead of employing them, as previously, to make loans secured by urban mortgages. At the request of the Association of Life Insurance Presidents, statistics were compiled regarding these investments down to the end of 1914 (1). The companies figuring in this compilation represent about 97 ½ per cent. of the total amount of all the mortgages possessed by all companies of this kind in the United States. They have since added to the statistics more recent data covering the period from the end of 1914 to the end of December 1917.

It is these recent data which we propose to examine.

§ I. THE INCREASE OF LOANS SECURED BY MORTGAGES ON RURAL REAL ESTATE.

During the ten years which ended with 1914 there was a very remarkable increase in the mortgages held on real estate by American life insurance companies. From constituting one fourth they came to constitute one third of these companies' total assets.

In 1904 their amount was \$670,000,000; in 1914 it was \$1,700,000,000: in other words it increased by more than 150 per cent. The mortgage loans constituted 27 per cent. of all assets in 1904, 34 ½ per cent. in 1914. In 1916 they amounted to \$190,000,000, but there had been a very slight decrease of their ratio to total assets.

The farm mortgage loans amounted in 1914 to \$655,000,000 or to 39 per cent. of all mortgage loans held by American life insurance companies. This was 38 per cent. of all farm mortgage loans reported by the United

(1) See our issue for August 1916, page 47.

States census of 1910 and \$100,000,000 more than the total amount of the farm mortgage loans credited to all banks and trust companies by the Comptroller of the Currency in 1914.

The data for the years from 1914 to 1917 were contributed by 165 American companies owning more than 97 $\frac{1}{2}$ per cent. of all outstanding life insurance mortgages. All but six of these companies distributed these investments among States in their reports. During 1915 and 1916 the companies increased their farm mortgages by from \$665,000,000 to \$845,000,000 in round figures, a net increase of \$190,000,000. The rate of this increase was 29 per cent., the rate of the increase of all assets of life insurance companies in the same two years being 12 per cent. Thus the investments of life insurance companies in farm mortgage loans have recently increased at a rate two and a half times that of the increase of their general assets. In the same period the money lent on mortgages on real estate other than farm property was reduced by 2 per cent. or \$20,000,000.

The tendency to invest in agriculture certainly existed before the outbreak of the European war, but the statistics we are analysing make clear that this tendency was considerably accentuated in 1915 and 1916. If this accentuation has continued, mortgage loans in farm property must now constitute more than half total mortgage loans of life insurance companies.

The following table shows that in the nine first months of 1917 the amount of farm mortgages reached \$200,000,000.

§ 2. DISTRIBUTION OF MORTGAGE LOANS BY STATES.

The distribution of the farm mortgage loans among the various States is interesting as showing the connection between facilities for credit and the development of agriculture. According to the table we reproduce the companies considered had at the end of 1916 outstanding loans in nineteen States amounting to more than \$5,000,000. If North Dakota be excepted, it is found that the amount of loans increased in all these States between 1914 and 1916. In four States which do not figure among these — Alabama, North Carolina, Oregon, and Wisconsin — the increase is found to be one of more than a million dollars.

The great agricultural districts are naturally those which attracted the larger part of investments in rural mortgages in 1915 and 1916. The States of the North West led — \$86,000,000 or an increase of 30 per cent.; those of the South West came next — \$46,000,000 or an increase of nearly 25 per cent. There followed the North Central States — \$19,000,000 or an increase of 16.8 per cent.; the States of the Gulf and Mississippi Valley — \$11,000,000 or an increase of 54 per cent., that is the largest proportionate increase; and the South Atlantic States — \$9,800,000 or an increase of 48 per cent. Thus the largest sums were invested in the North West and South West, while the increase was most marked south of the Potomac and Ohio rivers and east of the Mississippi.

More than 95 per cent. of the total amount of farm mortgage loans of the kind we are considering, nearly 95 per cent. of their increase in 1915 and

Mortgage Loans on Farm Property by 159 American Life Insurance Companies.

States	Outstanding loans on 31 Decem. 1916	Increase or decrease since 1914	Loans made from 1 January to 30 Septem. 1917
—	\$	\$	\$
1. Iowa	195,762,541	50,271,420	61,152,392
2. Missouri	73,428,633	15,121,833	16,581,104
3. Kansas	70,043,115	9,647,667	13,291,741
4. Nebraska	65,602,706	3,212,313	12,595,164
5. Indiana	56,600,179	9,586,031	9,900,419
6. Illinois	55,142,033	5,200,274	10,661,114
7. Texas	49,242,811	16,999,955	12,514,803
8. Minnesota	43,700,060	9,718,767	12,688,443
9. South Dakota	41,067,023	14,116,246	11,154,806
10. Oklahoma	31,037,632	2,981,324	5,078,503
11. Ohio	19,134,143	2,945,206	4,545,799
12. Georgia	19,389,192	4,560,869	2,928,026
13. North Dakota	18,442,915	310,057	3,730,002
14. Tennessee	13,701,757	4,315,742	3,006,489
15. California	12,870,435	4,134,180	2,178,061
16. Kentucky	10,049,151	3,766,159	2,490,771
17. South Carolina	5,969,247	2,591,770	1,213,773
18. Montana	5,506,916	2,606,458	1,502,530
19. Arkansas	5,429,700	1,588,095	1,082,433
20. Idaho	3,660,748	906,494	875,020
21. Alabama	3,603,149	2,500,836	1,590,093
22. Mississippi	3,387,415	667,591	1,566,229
23. Washington	3,295,898	904,117	978,989
24. North Carolina	3,263,953	1,788,943	1,045,882
25. Wisconsin	3,011,852	1,008,108	987,207
26. Colorado	2,538,159	407,157	317,150
27. Oregon	2,261,730	1,153,818	936,989
28. Michigan	2,145,059	892,933	647,978
29. New Mexico	1,760,056	454,014	453,920
30. Utah	1,692,674	500,072	299,878
31. Louisiana	1,521,514	552,547	151,904
32. Virginia	1,197,997	142,012	344,055
33. Maryland	601,323	178,323	52,500
34. Arizona	543,912	136,310	20,000
35. Wyoming	381,462	139,515	20,400
36. Florida	350,454	284,450	165,350
37. Pennsylvania	180,725	150,431	73,750
38. New York	180,268	169,318	35,900
39. New Jersey	111,165	94,200	—
40. West Virginia	74,685	33,778	78,000
41. Delaware	55,350	10,250	16,000
42. Maine	47,400	41,450	—
43. Massachusetts	11,500	1,400	1,000
44. Vermont	10,250	3,525	—
45. District of Columbia	8,000	8,000	—
46. Connecticut	7,000	68,000	17,500
47. Nevada	5,000	6,500	130,000
48. New Hampshire	—	—	—
49. Rhode Island	—	—	—
TOTAL . . .	\$ 828,568,867	\$ 181,607,482	\$ 199,121,367

1916, and 94 per cent. of the new loans made in the first nine months of 1917 are to be ascribed to States which comprise 50 per cent. of the area, 47 per cent. of the population and 48.8 per cent. of the wealth of the country, according to the estimates of the United States Census Bureau. This makes clear the importance of the credit which life insurance companies furnish to agriculture; and points to the conclusion that if circumstances due to the war demand a further increase of agricultural production an important share of the extra credit needed will be contributed by these companies.

If we go on to consider the figures showing the average annual production from 1913 to 1917 of the six principal crops of the country, that is wheat, maize, oats, rye, rice and potatoes, we find that the nineteen States which lead the list and receive the bulk of the loans furnish about 75 per cent. of the total amounts of these crops. Moreover, according to the Agricultural Year Book, these nineteen States supply about 80 per cent. of the country's butchers' meat — beef, pork and mutton. Thus the life insurance companies have placed about 95 per cent. of their farm mortgage loans in the States which furnish about three quarters of the country's food supply.

• § 3. RATE OF INTEREST ON MORTGAGE LOANS. .

The companies which supplied data as to their mortgage business gave information as to the average rate of interest they charged on about 75 per cent. of the loans outstanding at the end of 1916 and about 50 per cent. of the new loans made in 1917.

From 1914 to 1916 the average rate of interest charged on farm mortgage loans rose slightly throughout the country, namely from 5.55 to 5.63 per cent.; but the average rate charged on the \$200,000,000 worth of loans made in the first nine months of 1917 fell to 5.52 per cent. The average for the whole year was however probably slightly higher, for the interest on money rose in the last quarter of the year, as is shown by the fact that in 1917 the Federal Farm Loan Board fixed the rate of interest on its transactions at 5 $\frac{1}{2}$ per cent.

We should note, finally, that in fourteen States, which absorbed at the end of 1916 more than 70 per cent. of the total amount of the farm mortgage loans of life insurance companies, the average rate of interest was 5 $\frac{1}{2}$ per cent. or even less. As for the loans of 1917, the rate of interest on them up to 30 September was in the twelve States in which their majority was placed 5 $\frac{1}{2}$ per cent. or less.

* *

To sum up: the employment by life insurance companies of their available funds in the interests of agricultural development seems to be well fitted to meet the needs of increased cultivation, and seems to be made on moderate principles very like those observed by the federal institutions affording agricultural credit.

ITALY.

THE AGRICULTURAL CREDIT BRANCH OF THE BANK OF SICILY IN 1917.

SOURCE:

CONSIGLIO GENERALE DEL BANCO DI SICILIA SESSIONE ORDINARIA DEL 1918 RENDICONTO E BILANCIO CONSULTIVO SUL SERVIZIO DEL CREDITO AGRARIO ESERCIZIO 1917 (*General Council of the Bank of Sicily. Ordinary meeting of 1918. Comprehensive report and Balance-Sheet of the Department of Agricultural Credit in 1917*).

In a previous article (1) we examined the work accomplished in 1917 in the field of agricultural credit by the Savings-Bank of the Bank of Naples, which, as we saw, invested in business of this kind the sum of 30,983,679 liras, made up as regarded 10,728,576 liras of the deposits and capital of the provincial funds of agricultural credit which the Savings-Bank administered, and contributed by the State as regarded 20,255,103 liras. In Sicily however the affording of agricultural credit is entrusted to a special branch of the Bank of Sicily, which, like the Savings-Bank of the Bank of Naples and the other institutions of agricultural credit created by special laws, affords credit of this kind by means of intermediary bodies and in accordance with the fundamental principles of Italian legislation in this matter, giving direct aid to agriculturists only in exceptional cases. We will treat separately the two questions of the development reached by these distributing agencies of credit, and the business which, according to its last report, this department accomplished in 1917.

§ 1. EXCEPTIONAL PROVISIONS REGARDING AGRICULTURAL CREDIT.

The reader will remember that during 1917 there were various exceptional provisions for promoting an intensified cultivation of foodstuffs. Among them those included in the lieutenantcy decree of 10 May 1917, No. 788, and regarding agricultural credit deserve special mention. By this decree, the provisions of which have force until the end of the year in which peace is proclaimed, institutions of agricultural credit were authorized, independently of the regulations established by their by-laws and rules, to grant loans for the cultivation of corn, other cereals, vegetables and edible tubers, in each case in a measure and for a period proportionate to the extent and intensity of cultivation and the length of the period of growth. To secure loans of this kind a legal and unlimited lien on the several crops which the loans contribute to produce is granted, and is extended to cover

(1) See our issue for last September, page 727.

all crops of the farm in question, both growing crops and crops harvested during the year, as well as the supplies existing in appurtenant dwelling-houses and other buildings and produced on the farm. This lien comes in order of precedence immediately after that securing legal costs in accordance with Article 1959 of the Italian Civil Code, and it accrues of right to the lending institution in consequence of the mere fact of a loan in cash or kind, becoming the liability of the person who owns, cultivates or manages the land in question in the year in which such loan matures.

The same decree further lays down that the penalties established by Article 203 of the Penal Code shall be incurred not only by a debtor who depreciates or withdraws property subject to the lien or a debtor who diverts from their rightful objects the sums lent, but also by a debtor who in case of a requisition does not declare his debt to the institution of credit to the authority ordering the requisition. Where such a declaration is made the requisitioning authority must immediately communicate it to the lending institution, to which the price of the requisitioned products will be due in so far as is necessary to cover the amount of the loan.¹ All documents relative to the loans made in accordance with these rules are exempted from all registration and stamp duty and are liable to only half the usual duties on the legal and exchange transactions to which they may give rise.

As we had occasion to remark in one of our articles on agricultural credit in Italy (1) the importance of these measures lies in the fact that they have notably strengthened the securities held by the lending institutions, and have appropriately given to agricultural credit the character of land rather than personal credit, tracing out for it a new path on which it may hope to attain good results and on which it should indubitably develop and consolidate its activities.

Having premised these statements, we will at once pass to an examination of the growth in Sicily in 1917 of the institutions distributing agricultural credit and the intermediary institutions.

§ 2. THE INTERMEDIARY BODIES.

In 1917 the work of the agricultural credit branch of the Bank of Sicily was, as it affected the intermediary bodies, chiefly one of improving and strengthening rather than extending the existing organization. This explains why in this year only three new bodies were entered on the list of intermediary bodies while eight were eliminated thence, the total number of accredited institutions being therefore reduced from 324 on 31 December 1916 to 319 on 31 December 1917. Of these institutions as many as 299 had the form of co-operative societies, namely 262 nominally collective, 34 limited liability and 3 joint-stock societies, while 20 had the form of bodies existing for moral purposes. The data for the preceding year shew that there has been a constant increase of the nominally collective societies, whe-

(1) See our issue for December 1917.

	Number of communes in the district	Number of accredited institutions
Palermo.	76	53
Messina	97	28
Catania	50	26
Caltagirone	13	25
Girgenti	41	63
Trapani	20	47
Syracuse	32	30
Caltanissetta	28	47
	357	319

Of the 188 communes among which, according to the preceding data, the 319 intermediary bodies for which agricultural credit accounts had been opened were distributed at the aforesaid date, 108 had only one intermediary body each, 53 two of them, and 18 three of them, while six had four, one seven and one twelve.

As has been noted, the agricultural credit branch followed in the year under review the principle of limiting to the minimum all propaganda work for further extending its scope, and devoted the greater part of its activity to an improvement of the working of the bodies previously admitted. With this object 81 inspections were undertaken and yielded as a rule good results.

§ 3. THE BUSINESS ACCOMPLISHED IN 1917.

The transactions of the department in 1917, on its own behalf and on behalf of the provincial funds of agricultural credit which it administers, numbered 15,775 and covered 7,255,633 liras. The following table gives the data as to the activities of the department in the eleven years of its existence:

TABLE I. — *The Activity of the Department from 1907 to 1917.*

Year	Transactions											
	With intermediate bodies					With individuals					General total	
	Rediscounts		Direct discounts		Total	Discounts		Current mortgage accounts				
	Number	Sum	Num-ber	Sum		Num-ber	Sum	Num-ber	Sum			
1907	929	151,255.00	8	113,658.92	937	294,913.92	4,336	805,341.60	—	—	5,273	1,100,255.52
1908	9,663	1,881,708.63	31	127,629.69	9,694	2,009,338.32	819	182,960—	—	—	10,513	2,192,298.32
1909	16,113	3,634,759.89	68	372,119.43	16,181	4,006,979.32	169	54,290—	—	—	16,350	4,061,269.32
1910	25,490	6,089,063.58	145	999,201.78	25,635	7,088,265.36	103	31,455—	—	—	25,738	7,119,720.36
1911	30,766	7,852,904.57	198	1,262,692.58	30,964	9,115,597.15	83	22,374.99	—	—	31,047	9,137,972.14
1912	37,818	9,990,308.72	287	2,035,327.09	38,105	12,025,635.81	69	13,755—	—	—	38,174	12,039,390.81
1913	48,290	13,374,781.01	371	2,245,375.70	48,661	15,620,156.71	51	8,475—	—	—	48,712	15,628,631.71
1914	38,764	9,734,464.94	397	3,959,619.84	39,161	13,694,084.78	125	52,075—	—	—	39,286	13,746,159.78
1915	45,362	9,804,550.11	349	2,727,102.35	45,711	12,531,652.46	102	116,570—	—	—	45,813	12,648,222.46
1916	24,288	5,855,585.55	237	1,731,495.05	24,525	7,587,080.60	50	205,500—	3	108,500—	24,575	7,901,080.60
1917	15,439	4,641,124.13	151	1,526,449.40	15,590	6,167,573.53	185	1,088,059.80	—	48,000—	15,775	7,303,633.33

From this table it appears that the transactions accomplished in 1917 suffered, as compared with the previous year, a diminution of 8,800 in their number and 597,447 liras in their total amount. This reduction of agricultural credit business was solely due to the abundance of money in the country districts and was strictly related to the contemporaneous increase we have already noticed in the amount of the deposits of the intermediary bodies.

Of the total number of exchanges effected in 1917, 15,682 for 7,226,933 liras were discounts with the funds of the provincial funds; and 93 for 28,700 were made out of the department's own resources, which also enabled two deductions amounting to 48,000 liras from current mortgage accounts opened in 1916.

The loans made in 1917 were distributed according to their objects in three groups: 1) for seeds, manures, fertilizers, cultivation and harvest 15,490 loans for 5,565,834 liras; 2) for machines, implements and live and other stock 134 loans for 163,350 liras; 3) for direct discounts to intermediary bodies 151 loans for 1,526,449 liras. Of the loans of the third group 105 for 1,270,344 liras were granted to enable collective purchases; and 22 for 157,074 liras to allow the payment of the rents of rural lands, etc. Loans for collective purchasing show an increase of 525,876 liras since the preceding year.

The loans made in 1917 are distributed as follows in accordance with the status of the borrowers:

TABLE II. — *Classification of transactions in accordance with the status of borrowers.*

Situation of land	Landowners		Holders of long leases		Mettayers		Holders of short leases		Total	
	No.	Sum	No.	Sum	No.	Sum	No.	Sum	No.	Sum
Palermo	2,161	730,383.90	93	29,640.67	150	56,603.41	918	289,200.97	3,322	1,105,828.95
Messina	475	237,258.39	5	1,622.20	45	12,888.00	58	24,902.75	383	266,141.37
Catania	202	272,820.35	2	1,230.00	73	25,066.20	107	62,852.02	383	301,908.57
Girgenti	1,306	434,512.04	15	9,715.15	241	101,335.00	1,210	730,035.60	2,772	1,265,578.69
Trapani	824	125,774.04	40	11,002.40	40	12,115.00	1,770	359,794.70	2,064	478,685.14
Syracuse	490	209,131.30	861	187,932.25	143	38,755.05	844	270,438.39	2,278	796,236.99
Caltanissetta	782	228,155.06	55	9,711.07	320	65,142.10	1,032	395,975.25	2,118	679,983.48
Caltagirone	1,102	506,799.05	10	1,020.30	103	12,427.00	889	230,574.39	2,104	772,820.74
Total	6,720	2,798,295.16	981	252,972.94	1,125	394,261.76	6,798	2,353,754.07	15,624	(a) 5,729,183.93

(a) There were also 131 discounts for 1,536,449.40 liras made to bodies directly for various objects.

By kinds of crops the transactions are classified as follows :

TABLE III. — *Classification of transactions in accordance with kinds of crops.*

Situation of land	Grain		Vines		Oranges and lemons		Olives		Various crops		Total	
	No.	Sum	No.	Sum	No.	Sum	No.	Sum	No.	Sum	No.	Sum
Palermo	385	198,963.66	965	224,587.84	1,586	389,180.94	202	47,967.16	184	45,130.35	3,322	1,105,828.95
Messina	116	53,200.39	195	72,283.20	192	119,662.85	36	7,186.68	44	15,866.83	583	266,141.37
Catania	58	201,465.00	81	22,997.60	52	21,900.00	—	—	192	116,143.97	383	301,908.57
Girgenti	1,204	708,754.97	262	104,213.80	21	14,682.30	18	7,594.25	1,777	431,533.37	2,772	1,265,578.69
Trapani	1,433	350,039.85	317	116,181.00	1	600.00	2	750.00	289	41,090.59	2,064	478,685.14
Syracuse	431	249,931.35	1,285	278,034.85	238	159,950.00	29	8,140.00	295	100,130.79	2,278	796,236.99
Caltanissetta	1,170	474,242.16	233	61,682.10	—	—	—	—	695	144,035.22	2,118	679,983.48
Caltagirone	1,554	590,793.49	372	109,734.90	70	48,700.00	—	—	99	23,662.35	2,104	772,820.74
Total	6,465	2,796,762.07	3,290	989,723.29	2,169	933,315.89	287	71,639.49	2,975	917,544.19	15,624	(a) 5,729,183.93

(a) There were also 131 discounts for 1,536,449.40 liras made to bodies directly for various objects.

The following figures show the extent to which the various provinces participated in the total credit granted by the department on its own behalf and on behalf of the provincial funds in the form of exchanges, excluding the current mortgage accounts to which we have alluded:

Province	Amount
Girgenti	1,461,085 liras
Palermo	1,319,517 »
Syracuse.	927,898 »
Trapani ,	844,540 »
Caltagirone	830,173 »
Caltanissetta	773,885 »
Catania	592,459 »
Messina	506,076 »
	<hr/> 7,255,633 liras

The rate of interest applied by the branch to all its discounting and rediscounting business was invariably maintained at 4 $\frac{1}{4}$ per cent.

NEW ZEALAND.

CREDIT FOR LAND SETTLEMENT.

OFFICIAL SOURCE:

NEW ZEALAND OFFICIAL YEAR-BOOK, 1914 and 1917.

In our last issue we published a detailed study of land settlement in New Zealand. The progress achieved in this sphere, as shown by the data and figures we gave, is largely due to the facilities the State has provided for credit enabling the occupation and utilization of lands and the establishment of settlers and workers on their lots.

§ 1. THE SYSTEM OF MAKING ADVANCES TO SETTLERS.

The Advances to Settlers Office was established by an Act passed in 1894. An administrative officer called Superintendent was appointed early in the following year and a board set up to advise and confer with him. Advances can be made only with the consent of this board.

The capital fund was limited to £3,000,000. The minimum advance was fixed at £25 and the maximum at £2,500, repayable in thirty-six and a half years by half-yearly instalments of 3 per cent. of the sum borrowed.

The legislation has been amended at various times and is now embodied in the State Advances Act, 1913, which authorizes the borrowing of money for the purpose of lending it to settlers, workers and local authorities. For advances to settlers £1,500,000 may be borrowed each year, for those to workers £750,000, for those to local authorities £1,000,000.

Money is advanced to settlers on first mortgages of land and improvements, held by eighteen specified forms of tenure. When leasehold crown land forms the security for a desired advance, the applicant must, before he despatches his application, send notice thereof to the Commissioner of Crown Lands for the district in which the land is situated, in order that the Commissioner may at once supply the Superintendent with a report on the land.

Loans can be granted on all freeholds up to three fifths of their value, or up to two thirds thereof in the case of first-class agricultural land; and on leaseholds up to three fifths of the value of the interest of the lessee.

On securities classified as first-class loans may be granted for a term of thirty-six and a half years, on second-class securities for thirty years, and on third-class securities for twenty years. The classifying of securities rests solely with the Board of the office.

When an advance is required for the purpose of erecting a building, the amount of the loan granted by the Board may either be paid over in one sum when the building is completed, or, if the applicant desire, advanced in progressive instalments paid from time to time as erection proceeds. An inspection and report must be made by an officer of the Valuation Department, before any instalments of the loan are paid.

No loan of less than £25 or more than £2,000 can be granted. Applications for loans not exceeding £500 have priority over applications for larger sums. If the applicant have already obtained an advance under the Act and wish to obtain a further advance, on the same or another security, he must not apply for a sum which would bring his total advance up to more than £2,000. The security he offers must consist of one or more holdings, held as specified, and must be of the necessary value. If the security be leasehold there must have been regular compliance with all covenants and conditions of the lease, including the payment of rent.

All applications must be accompanied by a valuation fee which varies from 10s. 6d. in the case of advances not exceeding £100 to £2. 2s. in that of advances of from £550 to £2,000 in amount.

Mortgages are redeemable by half-yearly payments of principal and interest combined. They may also be wholly extinguished at any time. Further, the mortgager may from time to time pay to the Superintendent, in addition to the half-yearly payments, sums of £5 or a multiple thereof which may be employed, at the date at which the next instalment is due, to pay half-yearly instalments, as they fall due, until the deposit is exhausted, or to pay as many half-yearly instalments of principal as they will cover, the corresponding interest not being charged as far as such instalments are concerned. The mortgager can thus reduce the term of the loan. When at least one tenth of a loan has been repaid by half-yearly or anticipated instalments he may, with the consent of the Superintendent, readjust the loan by treating the balance of principal then unpaid as a fresh loan duly granted for a fresh term. This is however only allowed if such balance amount to at least £100. Under the new arrangement the mortgager does not pay interest on the original loan but only on such balance.

Reports on the securities are made by valuers of the Government Land Valuation Department. With the corresponding valuations, which appear in the district valuation rolls and are prepared in accordance with the Valuation of Land Act 1908, and with reports, in the case of crown leaseholds, from the Commissioner of Crown Lands, they are considered by the General Board. Board meetings are held weekly or as occasion requires. The Superintendent is bound by the resolutions of the Board.

Mortgages may pay instalments and interest to the credit of the Superintendent at any money-order office, free of all costs for remitting the money to Wellington. Advances are also made through the Post Office.

From 1884 until 13 March 1917, 61,097 applications for loans amounting to £24,913,493 were received. The Board authorized the lending of

£17,358,830 to 46,954 applicants. The following table shows the business done from 1907 to 1917.

Advances to settlers 1907-1917.

Year ending 31 March	Applications received		Loans authorized		Amount advanced	Amount repaid
	Number	Amount £	Number	Amount £		
1908	3,183	1,668,135	2,955	1,355,450	1,197,416	568,655
1909	4,471	2,050,252	3,078	1,202,995	1,493,836	559,163
1910	4,131	1,539,150	3,201	1,038,340	1,095,120	545,528
1911	4,957	2,122,749	3,571	1,282,880	1,204,310	726,714
1912	5,355	2,593,084	4,610	2,191,300	2,174,085	1,018,286
1913	3,187	1,164,225	2,114	749,590	850,300	693,511
1914	3,604	1,400,248	2,390	878,855	973,005	700,253
1915	3,870	1,826,265	2,100	749,040	997,040	737,477
1916	2,507	982,800	2,022	746,630	814,555	713,177
1917	1,619	660,975	1,412	515,270	588,055	643,751
Totals to 31 March 1917	61,097	24,913,493	46,954	17,358,830	16,945,010	8,909,196

Not all the advances to settlers are made by the Advances to Settlers Branch of the State Advances Office. Part of the business shown in this table was done by the Public Debt Sinking Funds Branch and the Advances Office Sinking Fund Branch. The advances to settlers authorized by these three branches in 1916-17 were as follows:

Branch.

	Advance authorized	
	Number	Amount
Advances to Settlers	1,125	358,730
Public Debt Sinking Funds	—	—
Advances Office Sinking Fund	287	156,540
	1,412	515,270

The following are details as to the business of the Advances to Settlers Branch only:

	Number	Amount
Loans not exceeding £500	921	299,735
» exceeding £500 but not exceeding £1,000	122	85,850
» exceeding £1,000 but not exceeding £2,000	29	43,270
Total	1,072	428,855

These loans were secured by land of the following categories :

	Number of advances	Amount advanced
Freehold	649	242,435
Leasehold	418	182,990
Freehold and leasehold combined	5	3,430
Total . . .	1,072	428,855

Outstanding advances on 31 March 1917 were as follows :

	Number	Amount
Loans not exceeding £ 500	15,081	3,228,155
» exceeding £ 500, but not exceeding £ 1,000	3,123	2,218,225
» exceeding £ 1,000, but not exceeding £ 2,000	1,322	1,819,168
» exceeding £ 2,000 but not exceeding £ 3,000	193	489,575
Total . .	19,719	7,755,123

These outstanding advances were secured by land of the following categories :

	Number of advances	Amount
Freehold	12,066	5,530,507
Leasehold	7,378	2,045,963
Freehold and leasehold combined	275	178,653
Total . . .	19,719	7,755,123

In 1916-17 the average sum advanced on a freehold was £458, the average advanced on a leasehold £277 and the average advanced on a mixed freehold and leasehold £650. For 1915-16 the corresponding averages were £465, £284 and £ 604, respectively.

§ 2. ADVANCES FOR BUILDING WORKERS' HOUSES.

The Superintendent of the State Advances Office is authorized to lend money for the purpose of buying or building a dwelling to any person employed on manual or clerical work whose income does not exceed £200 a year and who does not own any land other than the allotment on which it is proposed to build. The sum advanced must not exceed £450 and must not exceed the value of the house about to be built. It is secured by a

mortgage on the whole property. The interest is payable half-yearly together with an instalment of the principal, which is thus fully repaid in thirty-six and a half years, thirty years or twenty years, as the case may be, when the mortgage is released. A valuation fee of 7s. 6d. must accompany each application for a loan of this kind. No loan of this kind will be granted to anyone who is not going to reside permanently on the land which is the security. Anyone desirous of receiving such an advance can apply for it in writing on a special form which can be obtained from any postmaster in the Dominion. The Department supplies applicants with plans and specifications free of charge. The cost of the buildings varies with their size from £120 to £640. A building of a type costing £300 more than the maximum authorized loan is thus included for the benefit of workers who wish to spend their savings on the erection of a better house than that which the loan could provide.

The total sum thus advanced to workers up to 31 March 1917 was £3,347,395. In the year which ended on 31 March 1917, 734 applications were received for loans aggregating £266,740. The advances granted in the year numbered 605 and amounted altogether to £214,965. They were secured by freehold and leasehold land as follows:

by freehold land	594	loans amounting to	£ 212,310
» leasehold land	11	» » »	2,655
Total . . .	605	» » »	£ 214,965

The total amount advanced up to the end of the financial year was £3,347,395, and the net amount of the advances then outstanding was £2,650,419. This latter sum was secured as follows:

by freehold land	8,902	outstanding loans amounting to	£ 4,542,115
» leasehold land	569	» » » »	108,304
Total . . .	9,471	» » » »	£ 2,650,419

The Workmen's Dwellings Act, 1905, provides for the erection by the State of workmen's dwellings on crown or settlement lands reserved for that purpose. A worker is defined as a landless person whose income does not exceed £175 a year. The most recent amendment of the Act fixed the maximum value of such a worker's dwelling at £750. It can be erected on a rural allotment of about five acres, the land having a maximum unimproved value of £250: this allows £500 for the cost of building. Dwellings can be let by the week or month for a rent equal to 6 per cent. of the capital value, plus rates and insurance, or on a lease of twenty-one years with a right of renewal. A worker can acquire the freehold by paying weekly, fortnightly or monthly instalments for a period of twenty-five and a half years. The instalments are equal to 7 per cent. of the capital value, 5 per cent. being interest and 2 per cent. going towards the payment of the prin-

cipal. In the case of a stone or brick house the period for repayment is extended to thirty-six and a half years.

On 31 March 1917, 630 houses had been erected under this Act.

§ 3. LAND SETTLEMENT BY DISCHARGED SOLDIERS.

By the Discharged Soldiers Settlement Act, 1915, discharged soldiers are helped to become farmers in that they are enabled to hold land by ordinary and by special tenures.

Tenures of the former kind are provided specially for hale or slightly wounded men. The area set apart by proclamation of the Governor General for settlement by discharged soldiers can be subjected to ordinary tenure: that is to say land within it can be held in return for a payment in cash. An obligation to reside on such land and a right to purchase it pass to the holder.

Land held by special tenures can be sold or let to men who have lost an arm or leg or have otherwise been seriously wounded, but are still able to earn a living by fruit growing, dairy or poultry farming, etc. The Land Boards are responsible for seeing that these men obtain satisfactory lots of land on the requisite terms. The State gives financial aid until the land begins to bear, and makes loans to enable enclosure, clearing, drainage, building and the purchase of live stock and implements. These loans are secured by a crown mortgage on the lands. No transfer of right in land acquired under this Act may be made for ten years without the consent of the Land Board and the approval of the Minister of Lands.

An amendment of 1916 extended the scope of the Act to include discharged soldiers who are the lessees or licensees of land administered by a Land Board but not acquired under the Discharged Soldiers Settlement Act.

On 31 March 1917, 337,961 acres of land had been set apart by proclamation for settlement by discharged soldiers, 204,379 acres being under special and 133,582 acres under ordinary tenures.

In the year which ended on 31 March 1917, 522 applications were received under this Act. In all 319 allotments, aggregating 143,524 acres, were made.

In virtue moreover of a clause in the Land Laws Amendment Act, which authorizes members of the New Zealand Expeditionary Force to apply for land by proxy, 40 soldiers obtained in 1916-17 a total concession of 142,566 acres.

MISCELLANEOUS INFORMATION RELATING TO CREDIT
IN VARIOUS COUNTRIES.



FRANCE.

ADVANCES AND GRANTS TO AGRICULTURISTS WHO HAVE SUFFERED BY
THE WAR

In a circular dated 21 October 1918 and appearing in the *Journal Officiel* of 3 November, M. Lebrun, Minister of the Blockade and of the Liberated Districts, intimates what are the new provisions as to the special system by which advances are made to form working capital for farmers who resume tenure of their old farms in the liberated districts. The circular contains the following rules :

The special system established for persons who have suffered loss in the liberated districts will be applied henceforward only in cases of the resumption of farms by their former farmers or persons holding these farmers' rights, that is to say it will be applied in order that these farms may be reconstituted by their evacuated owners or farmers who wish to re-establish themselves on their former lands in order to resume cultivation of them.

The law of 4 May 1918 (1) will be applied in all other cases, that is to say in all cases of the resumption by persons other than their former farmers of abandoned lands or lands held to have been abandoned. It will be applied in particular in a case to which qualification for advances for working capital previously attached, namely that in which a farmer who has suffered by the war finds that his own holding is wholly or partially incapable of being cultivated in existing circumstances, and wishes to take another farm or other pieces of land in any part of the district, either near or far from his former farm.

The instructions with regard to a special system of advancing working capital contemplate a maximum advance of 400 francs a hectare, irrespective of the advances in kind, that is of implements, live stock, seed, etc., which the Office of Agricultural Reconstruction may make, and without prejudice to another rule which established that the total sum of advances and credits allotted on any pretext may not, on principle, exceed half the approximate value of the loss which has been suffered. The necessity to raise these bases of allotments and to fix them in accordance with the maxima regularly determined by the law of 4 May 1918 has been recognized, for they were fixed when no other indication, different in form, had yet been given as to the amount of the costs recognized to be necessarily incurred in order to bring lands under cultivation. It is however only in special cases in which a necessity has been duly ascertained, as stated above, that the

(1) See our issue for September 1918, p. 739.

advances may exceed a maximum of 1,000 francs and approximate to one of 2,000 francs.

Advances in kind and cash are made by the Departmental Commissions associated with the prefects.

We should also notice a decree of the Ministry of Agriculture of 23 October 1918 which establishes the conditions on which the apparatus for mechanical cultivation may be ceded to agriculturists who have been victims of the war. The following is the text of the decree :

" Article 1. — The Office of Agricultural Reconstruction of the departments which have suffered by the invasion may receive grants out of the budget of the Ministry of Agriculture for the apparatus of mechanical cultivation which this office has ceded to farmers who have suffered by the war.

" Article 2. — Grants not exceeding 50 per cent. of the price of the tractors and ploughs will be made as these machines are ceded.

" Article 3. — Applications for grants will be sent to the Ministry of Agriculture by the Office of Agricultural Reconstruction. They will be accompanied by the following documents :

(1) a certificate of the Office of Agricultural Reconstruction testifying that the farmers to whom the machines have been granted have suffered loss by the war ;

(2) an invoice showing the price of the machines and showing that at least half such price has been paid by the grantees, in cash or by an appropriation out of indemnities for war losses ;

(3) an undertaking by the grantees that they will in three years sow in wheat and other grain the minimum area determined in the resolution making the grant to them "

This is the first time that provision has been made for grants to agriculturists directly and not to syndicates exclusively. The earlier system was explained as follows, a few weeks earlier, in the *answer to a written question* 23,815 in the *Journal Officiel* of 29 September 1918 :

"The appropriation of grants to the purchase of apparatus intended for mechanical cultivation is regulated by the decree of 8 October 1917. According to the provisions of this decree grants are made only to the departments, communes and agricultural groupings comprising at least seven farmers which acquire farming tractors for the common use of the persons within their competence or their members. The amount of the grant is 50 per cent. of the price of the machines (tractors and ploughs), if a set of at least five tractors or a steam or an electric plough be in question. Otherwise, that is to say when there is a purchase of from one to four farming tractors only, the grant may not exceed a fourth or a third of the price of the machinery, according to whether the applicant for it has recourse to agricultural credit or not, in conformity with the law of 29 December 1906. These maxima may always be raised, respectively to the third or the half of the price of the machinery, for districts which have suffered by events of the war. In these districts the communes or associations, benefiting by the grants, may cede their machinery, without profit, to one or more

farmers who have suffered by the war, on condition each farmer give the ceder an undertaking that he will sow grain on a minimum area fixed by the ministerial resolution which makes the grant. The documents necessary for obtaining these subsidies are : a) the invoice showing the price of the machinery ; b) an agricultural report on the district in which the tractors acquired are to be employed ; c) an undertaking to sow grain over a minimum area fixed in accordance with the price of the machinery ; d) if need be, the documents proving those interested to have suffered by the invasion ; e) a resolution of the general or the municipal council authorizing the purchase, if the case be that of a department or a commune ; f) if the case be that of an agricultural association, two copies of its by-laws, and a note as to its members and as to the resources at their disposal. These documents must be transmitted by the prefect, who must intimate that they are being sent“.

It is seen that grants were previously made to agricultural groupings and to departments and communes but not to farmers individually.

ITALY.

PROVISIONS AS TO THE CREDIT AFFORDED BY THE AGRICULTURAL INSTITUTIONS OF LACIUM. — *Gazzetta Ufficiale del Regno d'Italia*, No. 202. Rome, 27 August, 1918.

In order to facilitate the extension and the development of the intensive cultivation of foodstuffs, the Minister of Agriculture provided as early as the beginning of this year that the chief institutions of agricultural credit should dispose of more capital and thus be able to grant loans to agriculturists liberally and on moderate terms. Important sums, amounting altogether to 65,000,000 liras, have therefore been appropriated to this end. On the principle that there should be special provision for particular districts, the Minister of Agriculture lately published a new decree of the Lieutenant General of the Kingdom, No. 1142, dated 14 July 1918, which provides especially for the agricultural institutions of Lacium and supersedes the decree of 4 October 1917 with which we have already dealt (1). The new decree not only enables the agricultural institutions to open large credits and therefore to offer liberal and rapid advances to agricultural labourers. It also makes it possible for them, by means of the guarantees which the State opportunely supplies, to undertake leases of large farms and the purchase of lands, especially with the object of bringing uncultivated lands under cultivation. It establishes that the National Institute of Insurance, the National Fund Providing for the Disablement and Old Age of Workmen, the National Institute of Credit for Co-operation, the Savings Banks, the *Monti di Pietà* and the institutions of agricultural and co-operative credit are authorized, independently of all laws, rules and by-laws,

(1) See our issue for December 1917, page 43.

INFORMATION RELATING TO CREDIT

to grant loans, either individually or grouped in a consortium, to the agricultural institutions of Latium for the purchase of land, the payment of capital and dues and the disencumberment of land, and also on the increase in value which accrues to the property of these institutions as a result of the agricultural and agrarian reforms which may be realized on them. The National Institute of Credit for Co-operation is also authorized to constitute cautionary deposits and to give credit to the aforesaid institutions in order to supply them with the necessary means for the administration and ordinary cultivation of land. To guarantee these loans, the agricultural institutions of Latium will give the lending institutions a lien recognized by their receiver who collects all their income. Their property can also be mortgaged. These institutions of Latium must be authorized to contract loans by a decree of the Minister of Agriculture, or, in case of a mortgage on their property, by a royal decree proposed by this minister. When the society's receipts of the year do not cover the total amount of the annual payments due to the lending institutions, the State advances the difference, its advances being repaid by the agricultural institutions of Latium in the following year out of their receipts. In case of the inadequacy of the latter the Ministry of Agriculture fixes a supplementary contribution to be paid by members within the year. The period of amortization of loans by annual instalments begins on 1 January and must not surpass fifty years. The debtor may repay a loan by anticipating his instalments. The State takes part in the payment of interest to the extent of no more than 2 per cent.

Loans made to agricultural institutions in order to enable them to farm land are secured by a lien on growing fruit and crops and fruit and crops harvested during the year, and also on all provisions found in dwelling houses and buildings appurtenant to rural holdings or derived from these holdings. This lien comes next in order of precedence to that securing law costs and belongs to the agricultural institution and lending institution, to the extent to which either is implicated, in right of a loan in cash or kind made to any owner, cultivator or farmer of the land affected in the year in which the loan matures.

This decree supplies a need which has been much felt in Latium and fulfils the desires of the agricultural population. It opens up a new and easy way to endow the agricultural institutions of the district with more land and to improve the land they already hold.

SIAM.

MORTGAGES IN SIAM — *Statistical Year-Book of the Kingdom of Siam 1916*, First Number, Published by the Department of Commerce and Statistics, Ministry of Finance, Siam.

Only mortgages held under a title-deed in accordance with the results of the cadastral survey are registered by the Lands Record Office of Siam. At present slightly more than half a million such titles have been issued.

Other mortgages, those of land not yet brought under the jurisdiction of the Lands Registry Office, are registered at the Ampur Offices.

There is also a very prevalent practice of mortgaging land by merely depositing the title-deeds with the lender, sometimes with and sometimes without an agreement. This is the method frequently adopted in the case of small or short-term loans, the majority of small loans being probably secured by such mortgages.

Lastly property is mortgaged by commercial firms to secure advances up to a certain limit which varies from day to day. As a rule no special sum of money is recorded in such mortgage deeds.

The following tables deal only with those mortgages, registered by the Lands Registry Office, which specify the amounts of loans.

On 31 March 1916, the total number of title-deeds which had been issued by the Lands Records Department was as follows :

Province	Number of title deeds issued and filed
Krung Tep	78,606
Krung Kao	172,388
Nakorn Chaisi	61,778
Phachinburi	64,898
Rajaburi	58,386
Nakorn Sawan	14,142
Pitsanulok	42,170
Chantaburi	6,475
Puket	1,906
Total	503,749

TABLE III Area in R₀₁ under Certain Crops 2458 to 2458 (1911-12 to 1915-16)

Year	Krungs Top	Krungs Kao	Chan- laburi	Chum- pota	Nakorn Chai	Nakorn Sama	Nakorn Sawana	Nakorn Sawana	Nakorn Sawana	Pattani	Prachin- buri	Pitsan- ulok	Bayab	Pet- cha- bun	Puket	Ra- jaburi	Rajatan	Rd Rt	Udon	Total
Rice:																				
1911-12	—	1,065	356	—	570	3,175	510	—	—	—	235	235	310	252	—	1,295	1,013	—	1,005	11,121
1912-13	—	2,620	—	—	1,560	720	1,069	—	—	—	416	200	2,000	414	—	1,415	430	350	300	11,594
1913-14	—	1,700	130	—	890	317	343	—	180	—	1,235	385	4,540	—	—	280	902	780	261	11,093
1914-15	—	655	340	—	177	694	1,430	—	5	—	19	919	1,933	62	690	1,740	595	—	177	10,155
1915-16	—	1,950	10	—	760	1,024	230	301	25	—	259	869	1,863	113	3	937	171	1,509	431	10,134
Average for 5 years	—	1,798	167	—	791	1,181	720	6	42	—	373	582	2,129	168	127	1,125	626	528	439	10,805
Cotton:																				
1911-12	—	—	25,637	4,411	—	—	—	—	—	—	—	—	—	—	—	15,612	—	—	—	45,600
1912-13	—	—	28,000	4,425	—	—	—	—	—	—	—	—	—	—	—	12,079	—	—	—	45,404
1913-14	—	—	29,000	4,400	—	—	—	—	34	—	—	—	—	—	—	9,480	—	—	—	42,974
1914-15	—	—	9,822	—	—	—	—	500	70	—	—	—	—	—	—	11,704	—	—	—	22,096
1915-16	—	—	14,712	66	—	—	—	60	—	—	—	—	—	—	—	8,533	—	—	—	23,376
Average for 5 years	—	—	21,434	2,660	—	—	—	112	20	—	—	—	—	—	—	11,662	—	—	—	35,890
Tobacco:																				
1911-12	302	1,290	504	3,350	2,620	4,592	2,840	—	—	—	322	7954	1,600	597	138	2,220	6,194	—	5,370	40,063
1912-13	—	2,710	193	2,900	2,300	770	3,276	—	—	—	405	2,690	2,845	2,019	400	2,690	9,027	—	1,230	32,385
1913-14	—	3,230	280	2,497	500	1,245	1,985	—	480	—	1,817	1,405	3,735	—	200	1,683	4,573	—	1,267	30,327
1914-15	40	9,006	1,083	—	4,500	1,230	4,925	2,180	256	—	191	1,336	2,438	1,800	22	833	848	5,393	875	33,800
1915-16	150	2,564	265	810	1,735	1,178	2,116	180	688	—	305	1,666	2,575	430	709	1,979	2,060	8,029	5,422	35,681
Average for 5 years	98	3,725	465	2,891	1,749	1,805	3,028	472	285	—	670	3,010	2,627	973	306	1,753	4,489	2,684	2,925	33,901
Peanut:																				
1911-12	819,383	2,210,889	202,380	207,993	823,928	604,126	456,150	520,676	233,390	1,174,459	315,417	968,678	57,981	162,519	421,864	657,325	—	—	480,159	10,043,588
1912-13	1,091,473	2,304,062	213,713	212,450	1,032,069	511,481	627,325	745,921	222,840	1,209,710	399,036	981,230	73,310	204,756	546,387	1,282,299	309,190	—	509,316	12,547,573
1913-14	1,167,101	2,356,454	219,938	193,362	1,092,450	466,268	644,953	600,116	380,436	1,207,117	438,151	986,521	73,080	183,861	644,315	1,003,844	717,193	—	1,010,596	13,723,103
1914-15	1,204,040	2,205,060	192,015	174,800	916,597	501,573	622,960	764,380	233,380	1,075,280	456,836	1,151,104	152,692	559,849	979,679	1,282,299	626,275	—	906,019	12,916,898
1915-16	620,130	2,804,985	221,481	177,222	1,133,505	435,035	611,704	663,314	139,638	1,140,640	322,794	1,093,111	67,944	128,643	486,935	966,292	987,967	—	892,797	13,152,671
Average for 5 years	984,436	2,440,650	209,924	193,035	1,002,187	464,651	591,246	661,093	243,743	1,174,049	426,697	1,096,731	69,992	182,494	525,884	978,084	528,184	—	798,577	12,476,809

SPAIN.

THE REGISTER OF AGRICULTURAL PLEDGES. — *La Liga Agraria*, No. 1357. Madrid, 21 October 1918.

The abnormal circumstances due to the European war, and especially the administrative reforms which now occupy the public authorities in Spain, have not allowed them to issue rules as to the formation of the register of agricultural pledges to which the royal decree of 30 September 1917, already analysed in this review (1), refers. However, in order that the agricultural credit secured by pledges which the cited decree creates may develop from its outset, and in order to allow experience to have a part in its final organization, the Spanish government has thought it well to issue certain provisional rules and measures, to which officials in charge of these registers of agricultural pledges will have to conform. The government therefore published on 2 October 1918 a royal order of which the main provisions establish :

1) Clerks of the property registry, to whom contracts for loans secured by agricultural pledges are presented for registration, shall open a register of provisional entries.

2) The pages of this registry will have margins to allow for notes, will be initialled by the judge, and will bear the seal of the court.

3) The entries will be made in the strict order in which they are received, and within four days, other than holidays, of their reception, unless there be legal impediment.

4) At the end of the registry a table of names of persons, in the order of the entries, will be made.

5) When an act is presented for registration, the clerk of the registry will remit to the person presenting it a receipt showing the object and the date of the public document in question and the names of the contracting persons and of the notary who has issued the authorization. When the document has been returned and the fact of its return noted, the receipt will be withdrawn and will be placed in the archives.

UNION OF SOUTH AFRICA.

1. THE LOANS MADE BY THE LAND AND AGRICULTURAL BANK FROM 1913 TO 1916. — *Official Year-Book of the Union of South Africa*, 1917. Pretoria, 1918.

The Land and Agricultural Bank of South Africa, founded in virtue of a law of 22 June 1912, affords : 1) advances to farmers of sums of money secured by mortgages on land within the Union ; 2) advances of sums of money to co-operative societies and the cautionary payments attaching to the contracts into which these societies enter ; 3) advances of sums of

(1) See the article in our issue for April 1918, page 320.

money to farmers who hold crown lands with a right of purchase or on leases of ten years or more. In general, the bank makes the advances and undertakes the transactions for which it is authorized (Article 18 of the Act).

From the time it became active until 1 January 1917, the credit for which it has received application and which it granted was as follows :

Year	Loans applied for		Loans granted		Loans refused	
	Number	Value £	Number	Value £	Number	Value £
1913	3,874	2,706,994	3,091	1,749,130	446	409,728
1914	1,268	451,329	1,025	293,084	115	49,200
1915	401	176,354	322	131,655	25	12,514
1916	2,022	1,039,496	1,715	713,030	119	97,049

It is seen that after the initial impulse had been exhausted the war caused the applications for credit to fall off considerably, that the retrogression was further accentuated in 1915, but that in 1916 there was a strong recovery which it is interesting to examine in detail.

The business of 1916 was distributed as follows among the four provinces of the Union :

Province	Loans applied for		Loans granted		Loans refused	
	Number	Value £	Number	Value £	Number	Value £
Cape Province	146	135,404	103	79,935	22	26,005
Natal . . .	139	92,474	97	56,485	10	7,200
Transvaal . .	1,387	567,418	1,204	394,535	64	42,625
Orange Free State . . .	350	244,200	311	182,075	23	21,219
Total . .	2,022	1,039,496	1,715	713,030	119	97,049

Transvaal is seen to be the province which makes most use of the opportunities for credit which the Act of 1912 opened up for farmers. From the Transvaal there were almost four times as many applications for loans as from the Orange Free State, whence the next largest number were received, and the value applied for by the former province was more than double that for which the latter applied. The applications from the Cape Province and Natal came far below those from the other two provinces.

Advances made by the bank have very various objects, defined as follows by clause 19 of the Act of 1912 :

a) improvements, which term comprises farm buildings, enclosures, dipping tanks and other prophylactic and disinfecting plant used for live stock, and the clearing of land for cultivation, the ordering of watercourses with a view to preventing aridity, and plantations of trees, orchards, sugar-canes and tea ;

b) the acquisition of goods and material of all kinds and in general of the requisites of agriculture ;

c) the disencumberment of land from debt and in some cases the payment of other debts ;

d) the payment of costs attendant on the division of undivided land ;

e) the establishment and encouragement of agricultural and rural industries, including tobacco growing, dairy farming, fruit growing and the sale and export of fruit.

f) the acquisition of land for the objects mentioned under a), b) and c).

The advances actually made by the bank had the following objects :

Object of advances	1913	1914	1915	1916
	£	£	£	£
Improvements	216,270	46,831	5,110	53,920
Purchase of live stock	125,335	41,564	7,250	47,044
Extinction of existing debts . . .	662,118	107,057	20,282	128,228
Cost of dividing undivided lands	215	952	60	265
Establishment of agricultural and rural industries	150	—	—	600
Purchase of lands	525,972	157,960	84,663	244,320
Total . . .	1,530,060	354,364	117,365	474,377

It is seen that the purchase of land, which accounted in 1913 for about one third of the total sum advanced, accounted in 1914 for nearly half thereof and exceeded this latter proportion in 1916. The extinction of debts, which was at first foremost among objects for which advances were made, accounted in 1916 for about half as much as the purchase of land. Improvements of land are, in the order of importance, as far removed as the extinction of debts from the purchase of land. Improvements had an initial importance which they have not recovered. The purchase of live stock follows them closely although it was at first far less important than they. The figures which represent the costs of dividing undivided lands and establishing agricultural and rural industries are insignificant. For 1916 they refer only to the Transvaal, as appears from the following statement :

Object of advances by provinces in 1916.

Object of advances]	Cape Province	Natal	Transvaal	Orange Free State	Union
	£	£	£	£	£
Improvements	4,799	4,990	39,726	4,405	53,920
Purchase of live stock	5,869	4,845	32,311	4,019	47,044
Extinction of existing debts	24,925	16,495	51,438	35,370	128,228
Costs of dividing undivided lands	—	—	265	—	265
Establishment of agricultural and rural industries	—	—	600	—	600
Purchase of lands	16,329	4,625	163,575	59,791	244,320
Total	51,922	30,955	287,915	103,585	474,377

By the terms of the law advances to individuals cannot exceed £2,000 (clause 22) or advances to co-operative societies £10,000. In the case however of important works or improvements specially authorized by the Governor General as much as £5,000 may be advanced to an individual. In practice the amounts of most advances range from £100 to £1,000, as appears from the following table :

Amount of advances made from 1913 to 1916.

		1913	1914	1915	1916
Advances of more than £1,500	{Number	198	11	4	21
	{Amount	£ 374,205	19,850	7,420	38,170
Advances from £1,001 to £1,500	{Number	259	22	14	57
	{Amount	£ 332,820	28,425	18,190	70,465
Advances from £501 to £1,000	{Number	590	110	55	207
	{Amount	£ 447,310	80,445	40,150	149,400
Advances from £251 to £500	{Number	608	363	95	329
	{Amount	£ 233,685	143,775	35,260	125,665
Advances from £101 to £250	{Number	632	353	67	379
	{Amount	£ 114,275	63,285	11,980	69,827
Advances of £100 and more	{Number	349	238	56	261
	{Amount	£ 27,765	18,584	4,365	20,850
Total advances	{Number	2,636	1,097	291	1,254
	{Amount	£1,530,060	354,364	117,365	474,377

In 1916 advances were distributed among the four provinces as follows :

Amount of advances	Cape Province	Natal	Transvaal	Orange Free State	Union
Advances above £1,500	Number 6 Amount £ 10,720	—	12 21,850	3 5,600	21 38,170
Advances from £1,001 to £1,500	Number 7 Amount £ 8,135	3 4,000	25 31,265	22 27,065	57 70,465
Advances from £501 to £1,000 .	Number 24 Amount £ 16,915	22 16,305	109 77,245	52 38,935	207 149,400
Advances from £251 to £500 . .	Number 31 Amount £ 12,750	18 6,995	216 80,585	64 25,335	329 125,665
Advances from £101 to £250 . .	Number 14 Amount £ 2,687	16 3,325	317 57,695	32 6,120	379 69,827
Advances of £100 and more . .	Number 8 Amount £ 715	4 330	242 19,275	7 530	261 20,850
Total advances	Number 90 Amount £ 51,922	63 30,955	921 287,915	180 103,585	1,254 47,4377

It is seen that advances in the four provinces varied very much in amount. In the Transvaal, which led as regards the number of applications for advances and their total value, only 1.30 per cent. were above £1,500 in amount, while in Cape Province 6.6 per cent. reached this level. It was reached in the whole Union by 1.67 of the total number of advances. Small advances of £100 and less averaged for the whole Union 2.07 of the total number, and were made especially in the Transvaal where they formed 26.27 per cent. of the total number, as against 8.88 per cent. in Cape Colony, 6.35 per cent. in Natal and 3.88 per cent. in Orange Free State. In 1916 the average amount of an advance was £577 in Cape Colony, £491 in Natal, £312 in the Transvaal and £ 575 in the Orange Free State. For the whole Union it was £378. This last average had been £584 in 1913, £323 in 1914, £403 in 1915 and £378 in 1916.

* *

2. LOANS FOR IRRIGATION FROM 1910 TO 1917 — *Official Year-Book of the Union of South Africa*, 1917. Pretoria, 1918.

The Union Irrigation and Conservation of Waters Act of 27 May 1912, of which the text is published in the *Annuaire international de législation agricole* for 1912, creates, wherever the landowners affected prove that a need exists, irrigation districts which have each of them an irrigation office. Each office is a legal person, and has considerable rights for it can buy,

construct and maintain all the reservoirs, canals and other works of irrigation and drainage which it thinks necessary to the proper irrigation of irrigable areas within its district and to the drainage of the lands thereof; and it can buy, construct and maintain such works held in common by two or more landowners within its district, and superintend and execute, or pass contracts for the supervision and execution of all enterprise connected with the working, inspection or usufruct of these works and of all waters which it may conserve and deflect, with a view to the exercise of its powers (Clause 89). This activity requires considerable resources: the office of irrigation has the right to levy rates on any determined extent of land in its district which contains an irrigable area (Clause 90). In order to construct works of irrigation it can moreover obtain a grant from the government, as can individual landowners (Clause 117).

The following table shows the amounts of the loans thus made up to 1 April 1917. The figures for 1912-1913 refer to the period from 1 January 1912 to 31 March 1913; those for the other years to the twelve months beginning on 1 April of each year.

Province	Applications outstanding at beginning of year		Applications received during year		Applications granted during year		Applications refused or cancelled during year		Applications outstanding at end of year	
	Number	Amount £	Number	Amount £	Number	Amount £	Number	Amount £	Number	Amount £
1912-13										
Union	27	20,016	177	359,576	49	251,990	64	46,517	91	81,085
1913-14										
Union	91	81,085	201	420,000	104	381,894	65	39,078	123	80,113
1914-15										
Union	123	80,113	130	179,614	47	109,710	204	147,817	2	2,200
1915-16										
Cape Province	1	1,000	22	69,455	9	57,600	8	9,155	6	3,700
Natal	—	—	—	—	—	—	—	—	—	—
Transvaal	1	1,200	4	2,750	3	2,400	1	800	1	750
Orange Free State . .	—	—	5	1,487	—	—	3	757	2	750
Union	2	2,200	31	73,692	12	60,000	12	10,692	9	5,200
1916-17										
Cape Province	6	3,700	97	329,580	61	167,290	20	14,755	22	151,235
Natal	—	—	—	—	—	—	—	—	—	—
Transvaal	1	750	33	18,375	10	8,245	8	3,595	16	7,285
Orange Free State . .	2	750	22	5,858	5	1,540	10	3,488	9	1,580
Union	9	5,200	152	353,813	76	177,075	38	21,838	47	160,100

The twenty-seven applications outstanding at the beginning of the first year followed on the execution of an Act of 1906 affecting only Cape Province. Forty-one loans, of the total value of £17,645, had been granted there in 1910, and thirty-three of the total value of £105,665 in 1911. It is seen that the war caused applications to come in much more slowly, but in 1916-17, when they were for a total sum equal to that they covered in 1912-13, there was a considerable recovery. Readers will not fail to notice how severely applications for loans are scrutinized, 383 of them having been refused or cancelled as against 288 granted in the whole period considered. This is certainly a result of the fact that 204 out of 251 applications were rejected at the beginning of the war. In 1916-17, however, the number rejected was still exactly half that granted, which is a proof of the carefulness of the management.

Part IV: Agricultural Economy in General

ARGENTINE REPUBLIC.

AGRICULTURAL WAGES AND THE INCREASE IN THE COST OF LIVING.

SOURCES:

- ESTADÍSTICA AGRÍCOLA 1913-14. Dirección General de Estadística y Economía Rural. Ministerio de Agricultura de la República Argentina (*Agricultural Statistics 1913-14. General Direction of Statistics and Rural Economy. Ministry of Agriculture of the Argentine Republic*). Buenos Ayres, 1915.
- ESTADÍSTICA AGRÍCOLA 1914-15. Dirección General de Estadística y Economía Rural. Ministerio de Agricultura de la República Argentina (*idem* 1914-15). Buenos Ayres, 1916.
- ESTADÍSTICA AGRÍCOLA 1915-16. Dirección General de Estadística y Economía Rural. Ministerio de Agricultura de la República Argentina (*idem* 1915-16). Buenos Ayres, 1917.
- REVISTA DE CIENCIAS ECONÓMICAS (*Review of Economic Science*). Buenos Ayres, 1915-16-17.

The increase in the cost of living, due to multiple and varied effects of the war, has caused in all countries an increase in the cost of labour which, if it be not proportionate to the rise in prices, has a deleterious effect on work of all kinds, including agricultural work. This relation and this proportion, connecting the after-war prices of goods and supplies of primary necessity with the cost of labour, were not found in the Argentine until 1915. We will see that although the cost of living increased markedly in this country, without reaching the level attained in the belligerent countries and in the neutral countries which suffered most from alterations of the market due to circumstances of the war, yet wages, and especially agricultural wages, remained stationary or diminished.

This abnormal condition deserves very special study, for to investigate its antecedents and its causes is, substantially, to examine one of the most important aspects of the present economic situation of Argentina as regards agriculture.

§ I. MOVEMENT OF AGRICULTURAL WAGES.

We will first examine the movement of agricultural wages, taking available data as our basis.

The three following tables show this movement in the farming years 1912-1913, 1913-1914, 1914-1915, taking into account the general average wages and the maximum and minimum wages, paid in those years for agricultural work of all kinds. The data refer only to the provinces of Buenos Ayres, Santa Fé, Córdoba, Entre Ríos and Pampas, but are none the less representative of the actual situation with regard to wages of the whole country, since these provinces are, as is known, the richest and the most productive in the Argentine.

TABLE I. — *Average Wages in the Agricultural Year 1912-1913.*

Provinces	Labourers employed to prepare the land for sowing grain	Drivers of reaping machines	General labourers employed on the harvest	Master millers	Labourers employed on the maize harvest, paid by the			General labourers employed on threshing	Food supplied daily at time of	
	by the month	by the day	by the day	by the day	day	sack	100 kg.	by the day	sow- ing	har- vest
	pesos m/n ⁽¹⁾	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n
<i>Buenos Ayres :</i>										
General wages.	42.50	6	4.20	7.20	3	0.39	0.95	4	0.77	0.95
Maximum "	80	10	6.40	11	4.50	0.81	1.27	6.75	1.50	1.54
Minimum "	41.20	3.60	2.50	4.20	2	0.21	0.56	2.50	0.14	0.74
<i>Santa Fé :</i>										
General wages.	43.33	6	4.66	6	3.50	0.48	0.95	1.83	0.83	1.07
Maximum "	73.33	10.66	9	10.66	4.16	0.73	1.40	8.66	1.33	1.87
Minimum "	31.66	3.66	2.83	3.66	3.58	0.26	0.70	3	0.46	0.63
<i>Córdoba :</i>										
General wages.	50	6.33	4.33	7	4	0.50	1	4.60	0.93	1
Maximum "	83.33	11.33	9.83	13.33	4.50	0.73	1.50	10	1.50	1.30
Minimum "	37.33	3.50	3.75	4.40	2	0.57	0.60	3.25	0.50	0.50
<i>Entre Ríos :</i>										
General wages.	35	5	3.66	7.33	—	0.35	0.70	3.66	0.60	1.83
Maximum "	50	7.17	4.66	9.33	—	0.47	0.80	5.50	1.06	1.20
Minimum "	24.66	3.83	2.83	4.83	—	0.22	—	2.83	0.40	0.50
<i>Central Pampas :</i>										
General wages.	50	8	5	8	—	—	—	5	0.80	1.20
Maximum "	90	11	10	10	—	—	—	8	1	1.50
Minimum "	30	4	4	4.50	—	—	—	3.50	0.50	0.70

(1) National money.

TABLE II. — *Average Wages in the Agricultural Year 1913-1914.*

Provinces	Labourers employed to prepare the land for sowing grain	Drivers of reaping ma- chines.	General labourers em- ployed on the harvest	Master millers	Labourers employed on the maize harvest by the			General labourers em- ployed on threshing	Daily food in the time of	
	by the month	by the day	by the day	by the day	day	sack	100 kg.	by the day	sow- ing	har- vest
	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n
<i>Buenos Ayres:</i>										
General wages.	41.25	5.55	4.25	7	2.50	0.35	0.90	3.75	0.72	0.95
Maximum "	57.50	8.25	6	9.25	4	0.60	1.24	5.25	1.17	1.55
Minimum "	26.75	3	2.50	3.62	0.92	0.21	0.57	2.37	0.50	0.55
<i>Santa Fé:</i>										
General wages.	48.33	5	4.17	6	2.50	0.43	0.85	4	0.73	1
Maximum "	68.33	8.66	6	10	5	0.62	1.25	7.33	1.36	1.50
Minimum "	31.66	3.50	3	3.33	2	0.27	0.75	2.66	0.50	0.63
<i>Córdoba:</i>										
General wages.	48.33	5.83	4.67	6.83	2.50	0.48	1	4.33	0.67	0.93
Maximum "	68.33	9.67	7	11.33	—	0.70	1.52	7.33	1.26	1.70
Minimum "	33.33	4	2.70	3.83	1.80	0.35	0.90	2.63	0.50	0.60
<i>Entre Ríos:</i>										
General wages.	31.67	5	3.33	6	2.25	0.30	0.60	3.17	0.63	0.87
Maximum "	48.33	7	4.33	7.33	2.50	0.43	—	4.33	1	1.30
Minimum "	21.67	2.83	2.50	3.83	1.50	0.23	0.50	2.50	0.50	0.53
<i>Central Pampas:</i>										
General wages.	45	6	4	6	2.50	0.30	1	4	0.80	1.10
Maximum "	60	8	8	10	—	0.50	1.10	6	1.50	2
Minimum "	30	3.50	3.50	4.50	—	0.20	0.80	3	0.50	0.50

In order better to show the tendency we have noted in the movement of wages we give on page 841 a summarized table of wages which also comprises data referring to the years 1910-1911 and 1911-1912.

An examination of the data for the five years covered by the summarized table affords proof of the diminution of all agricultural wages taken together in the first years of the European war. While these wages showed a tendency to increase in the years 1910-11, 1911-12, and 1912-13 and in the five provinces to which the data refer, they suddenly in the course of the farming year 1913-1914 lost the increase, either falling or remaining stationary in 1914-15. This occurred, although to a varying extent, in the case of labourers employed to prepare the land for the sowing of grain and employed by the month, as in that of mechanics and men employed on the harvest or hired for threshing who are generally paid by the day. The same tendency is evident with regard to additions to wages in the form of food paid to labourers at seedtime and harvest.

TABLE III. — *Average Wages for the Agricultural Year 1914-1915.*

Provinces	Labourers employed to prepare the land for the sowing of grain	Drivers of reaping machines	General labourers employed on the harvest	Master millers	Labourers employed on the maize harvest by the			General labourers employed on threshing	Daily food in the time of	
	by the month	by the day	by the day	by the day	day	sack	100 kg.	by the day	sow-ing	har-vest
	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n
<i>Buenos Ayres :</i>										
General wages.	38.75	5.55	3.25	6.50	2.25	0.35	1	3.25	0.72	0.97
Maximum "	58.75	8.75	5.25	9	3	0.60	1.32	5.25	1.47	1.47
Minimum "	23.75	3.12	2.12	3.87	1.50	0.22	0.57	2.12	0.50	0.52
<i>Santa Fé :</i>										
General wages.	41.67	4.33	3.67	5.33	3	0.40	1.17	3.50	0.80	1
Maximum "	66.67	7.66	5.33	8	4	0.60	1.57	5.67	1.23	1.60
Minimum "	26.67	3.17	2.33	3.33	1.83	0.30	0.80	2.17	0.50	0.57
<i>Córdoba :</i>										
General wages.	50	7	5	8	2	0.50	1.10	4.50	0.75	1
Maximum "	80	9	7.75	10.50	2.25	0.77	1.47	7.50	1.40	1.45
Minimum "	25	3.50	3	4	—	0.33	0.75	2.05	0.50	0.65
<i>Entre Ríos :</i>										
General wages.	25	5	2.67	5.33	2	0.25	0.65	2.67	0.67	0.83
Maximum "	50.67	5.33	3.50	6.17	2.50	0.38	1	3.50	1.03	1.50
Minimum "	20.33	2.67	1.93	3	1.46	0.15	0.50	1.93	0.50	0.53
<i>Central Pampas :</i>										
General wages.	45	6.50	5	7	3	0.30	1	4	0.80	1
Maximum "	75	10	6	10	—	0.60	1.80	6	1.50	1.70
Minimum "	30	5	2	5	—	0.20	0.85	2	0.50	0.70

We should notice that this tendency, is not equally noticeable in all the provinces and in all forms of wages. In the province of Buenos Ayres the decrease is general for all wages, however they are paid, but in the other provinces daily wages are stationary rather than on the down grade. Even if in the province of Cordoba daily wages slightly diminished in 1914-15, as compared with 1912-13, they showed a slight tendency to increase in the following year.

These varied manifestations, evidently due to the special economic and agricultural conditions of each province, influenced other factors which contribute to the determination of wages, such as the different distribution in each province of the labour available for fieldwork, the different relations between interprovincial immigration and emigration, and the different industrial development of each province. In spite of them and

TABLE IV. — *Summarized Table showing the Movement of Wages from 1910-11 to 1914-15.*

Provinces	Labourers employed to prepare the land for the sowing of grain	Drivers of reaping machines	Labourers employed on the harvest generally	Master millers	Labourers employed on the maize harvest by the			Labourers employed on threshing generally	Daily food in the time of	
	by the month	by the day	by the day	by the day	day	sack	100 kg.	by the day	sowing	harvest
	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n	pesos m/n
<i>Buenos Ayres :</i>										
1910-1911.	40	5	4	6	2	0.25	0.80	3.50	0.60	0.70
1911-1912.	45	6	4	8	3.50	0.30	1	4	0.70	0.80
1912-1913.	45	6	4	7	3	0.40	1	4	0.80	1
1913-1914.	40	6	4	8	2.50	0.40	1	4	0.70	1
1914-1915.	40	6	3	7	2	0.30	1	3	0.70	1
<i>Santa Fé :</i>										
1910-1911.	45	5	3.50	5	2	0.40	1.10	4	0.60	0.80
1911-1912.	50	6	5	5.50	3.50	0.45	1	4.50	0.70	0.80
1912-1913.	45	6	5	6	4	0.50	1	5	1	1
1913-1914.	50	5	4	6	2.50	0.40	0.85	4	0.70	1
1914-1915.	45	5	4	6	3	0.40	0.20	4	0.80	1
<i>Córdoba :</i>										
1910-1911.	45	6.50	4	6	2.50	0.45	0.70	4.50	0.70	0.90
1911-1912.	50	6.50	5	7	4	0.60	1	5.50	0.75	1
1912-1913.	50	7	5	7.50	4	0.50	1	5	1	1
1913-1914.	50	6	5	7.50	2.50	0.50	1	5	0.80	1
1914-1915.	50	7	4	8	3	0.50	1.20	4	0.80	1
<i>Entre Ríos :</i>										
1910-1911.	30	4	3	5	1.50	0.30	0.90	3	0.55	0.65
1911-1912.	45	5.50	4	7	3	0.30	0.80	4	0.60	0.80
1912-1913.	30	5.50	3.50	7	—	0.35	0.70	4	0.60	0.80
1913-1914.	30	5	3	6	2	0.30	0.70	3	0.60	0.80
1914-1915.	25	5	2.50	5	2	0.35	0.70	2.50	0.65	0.80
<i>Central Pampas :</i>										
1910-1911.	45	4	3.50	6	—	—	—	4	0.65	0.80
1911-1912.	50	7.50	5	8	3	0.30	1	5	0.70	1.10
1912-1913.	50	8	5	8	—	—	—	5	0.80	1.20
1913-1914.	45	6	4	6	2.50	0.30	1	4	0.80	1.10
1914-1915.	45	6.50	5	7	3	0.30	1	4	0.80	1

on the whole the phenomenon of a tendency in wages to diminish subsists and is worthy of notice.

§ 2. THE COST OF LIVING.

With reference to the rise in the cost of living in the Argentine in recent years we have no precise data showing the movement in the price of all articles of primary necessity. But the fact that the cost of living has risen is affirmed by authorized publications in which the origin and the incidence of the rise are studied, and expedients for checking the general rise of prices which have already increased are suggested. The Argentine is said to be going through a new crisis, for which there are a number of causes, in particular the higher prices of articles of primary necessity and the unemployment of a large number of workmen.

It has been remarked that imported articles have during the war increased in price by about 50 per cent., and some other articles such as bread and meat, by 10 per cent. The lessened value of Argentine money as compared with the money of other countries, and the abundance of cash — one of the well known and first causes of a rise in prices — are equally notable.

If we remember also the increased freights for sea transport and the increased export of home produce which lessens the supplies within the country, the fact that living has become dearer needs no further proof.

We reproduce data as to the production, the exportation and the quantities available for consumption of wheat and maize, deducting the quantities needed for sowing in 1912-13, 1913-14 and 1915; and data as to the price of these foodstuffs and the price of frozen meat, well known to be one of the chief sources of Argentine wealth.

The data show that the quantity of wheat available for home consumption in the Argentine diminished in the three years under review, and this fact evidently contributed to the rise in prices which, as our data show, was between 1914 and 1915 as much as 9 francs a quintal.

TABLE V.— *Production, exportation, and quantities available for consumption of wheat and maize in 1913-14-15.*

Years	Production	Exportation	Difference between 1—2	Quantity intended for sowing	Quantity available for consumption. Difference between 3—4
	1 quintals	2 quintals	3 quintals	4 quintals	5 quintals
1913	51,000,000	28,121,490	22,878,510	5,000,000	17,878,510
1914	21,000,000	9,805,250	11,194,750	5,000,000	6,194,750
1915	45,850,000	25,115,140	20,734,860	4,821,000	15,913,860
1913	49,950,000	48,069,510	1,880,490	1,246,000	634,490
1914	66,840,000	35,422,800	31,417,200	1,261,000	30,156,200
1915	85,916,000	43,305,940	42,610,060	1,345,000	31,265,060

Prices:

Years	1913	1914	1915
	francs	francs	francs
Wheat (average annual price)	18.25	19.25	27.41
Maize. (" " ")	11.68	10.97	11.21
Frozen beef (per quintal)	50	50	109.01
Frozen mutton (per shcep)	40	40	93.43

The production of maize nearly doubled between 1912-13 and 1914-15 ; and 41,000,000 quintals therefore remained available for home consumption. Nevertheless the price of maize rose slightly between 1914 and 1915, as it ought not to have done in view of the increased production and the quantity reserved for home consumption.

As regards frozen beef and mutton, the quantities of them were more than doubled between 1914 and 1915. As we have already said, another factor contributing to the rise in prices was the increased cost of transporting foreign products and distributing them on Argentine markets. These costs rose constantly, as appears from the following index numbers which show their variations from the level at which they stood in 1910.

1910	100
1911	102.6
1912	108.3
1913	109.9
1914	110.8
1915	126.8
1916	160.6

Taken together, these few data which we have been able to procure prove an increase in the cost of living in the Argentine.

§ 3. CAUSES OF THE FALL IN WAGES.

How then has it been possible, in spite of the rise in price, for agricultural wages to fall during the years to which these notes refer ? It is evident that the fact is connected with the positions of those other factors, contributive to the determination of wages, to which we referred in speaking of the varying intensity of the phenomenon in the several provinces. We should notice in the first place the general fact that in agricultural countries an increase in the price of labour does not always correspond to an increase in the cost of living, as it does in countries in which the great iron, textile and other industries are much developed.

The South American countries, while they offer a vast field to the de-

velopment of industries of every kind and while in recent years they have made great strides towards the formation of important national industries, are still, as is known, far from having attained to true industrial organization.

In Argentina, in particular, the creation of great industries is too recent and their development has met with too many obstacles, not least among which is the insufficient density of population, to allow them to exercise a preponderant influence in the sphere of economics.

This general consideration might partly explain an anomaly of the phenomenon, the fact namely that while the price of provisions and other articles of consumption has increased in the Argentine, wages, including agricultural wages in which we are particularly interested, have decreased or remained stationary.

Beyond this general cause there is a specific cause for the aforesaid phenomenon, namely the great disproportion which exists between the permanent rural population and the quantity of labour temporarily required for certain works of agriculture. This disproportion has long since brought about a very defective distribution of labour in the Argentine. There are frequent and entirely spontaneous removals from one district to another, to supply temporary needs, of great masses of labourers who are influenced by the delusive hope of obtaining slightly increased wages. This unregulated migration within the country, and the instability of the population subject to it, cause an afflux to certain points of a supply of labour largely in excess of the needs of production.

The superfluity of labour is caused above all by currents of immigration into the Argentine, as appears from the data we reproduce which show the immigration and emigration of the working-class population in the last ten years.

TABLE VII. — *Immigration and Emigration from 1907 to 1916.*

Years	Immigrants	Emigrants	Differences
1907	257,924	138,063	+ 119,861
1908	303,112	127,032	+ 176,080
1909	278,148	137,508	+ 140,640
1910	345,275	136,405	+ 208,870
1911	281,622	172,041	+ 109,581
1912	379,117	172,996	+ 206,121
1913	364,271	191,643	+ 172,628
1914	115,321	178,684	— 63,363
1915	45,290	111,459	— 66,169
1916	32,990	73,348	— 40,358

• As appears from these data, immigration was until 1913 much in excess of emigration. This was due principally to the fact that wages in

the Argentine were nominally much higher than in European countries : hence there were strong migratory currents towards the Argentine which aimed at attaining to higher wages. The resultant plenty of labour was to the advantage of agricultural development when cultivation on a large scale, for which selected labour was not needed, was undertaken. However even in the period of her best harvests Argentina needed a far less supply of temporary agricultural labour than that which immigration afforded her, for, as is known, the cultivated land in this country has always covered a small proportion of her area. Only a further extension of cultivation could have remedied the inconveniences which followed on the aforesaid disproportion and thus solved one of the country's greatest economic problems. In Table VIII we give data as to the area cultivated during the last decade.

TABLE VIII. — *Area sown during the decade 1907-1916.*

Agricultural years	Area sown	
	Hectares	Percentage of area productive
1906-1907	9,880,594	4.50
1907-1908	10,256,975	4.70
1908-1909	11,214,600	5.14
1909-1910	10,871,650	4.90
1910-1911	11,773,620	5.40
1911-1912	12,980,000	5.90
1912-1913	13,488,280	6.20
1913-1914	13,754,190	6.30
1914-1915	13,348,000	6.13
1915-1916	13,318,850	6.12

The data in Table VIII prove that from 1906-7 to 1915-6 the cultivated area in the Argentine really increased, but this increase certainly was not proportionate to that of immigration and to the available supply of agricultural labour which therefore continued to be in excess of the needs of agriculture.

In the four last of the years to which the data refer immigration diminished noticeably, and, on the other hand, the emigratory movement developed ; but the great excess of labour was thus absorbed only to a very small extent, particularly in view of the fact that the slight increase in the sown area which characterized the previous years was not maintained. A part of the surplus of labour was absorbed by other industries for unspecified tasks ; but in view of the trifling importance of these in-

dustries in the Argentine and the difficulties, already mentioned, in the way of their development, such absorption could only be temporary and could not eliminate the great inconveniences which were the result of a plethora of labour.

There was a large residue of unoccupied labourers who could not be employed, and hence there were demonstrations on the part of the discontented and frequent strikes which made the general labour crisis yet more acute.

To sum up : it may be said that in spite of the lessened immigration and increased emigration of recent years, there has continued to be in the Argentine a supply of agricultural labour much in excess of the demand for it, whether this fact be due to the previous excessive disproportion between supply and demand, or to the insufficient increase of the cultivated area.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL, IN VARIOUS COUNTRIES.

GERMANY.

THE "POMMERSCHE LANDGESELLSCHAFT" OF STETTIN IN 1916. — *Archiv für innere Kolonisation*, Vol. IX, Part 12 Berlin, September 1917.

This society affords a particularly interesting example of the degree of vitality which a land settlement society can reach and maintain, for 1916 was only the sixth year of its existence. Its activity developed therefore half in time of peace and half in time of war. Some difficulties were encountered, as the reporter for the last year for which we have data notes. The difficulties are something like those to which we alluded in speaking of societies of the same kind but of earlier foundation. The society has had to continue to extend its sphere of activity with an increasingly curtailed staff, and to watch over the liquidation of business in the best interests of all concerned.

It should be noticed in the first place that this society, in accordance with its custom, has made a point of concluding current transactions. In their case it effects a cession as soon as a transaction reaches its term. It has thus ceded the *Rentengüter* of the *Rentenbank* to this bank, namely Lübtow in the district of Lauenburg, Nerdin in that of Auklam, Temnick in that of Saatzig and Grünberg in that of Dramburg. These cessions would in normal times have taken place in relation to a larger number of transactions, but the owners of some *Rentengüter* were in the army and unable to grant powers of attorney, and their business was therefore not undertaken by the *Rentenbank* as was that of others. This bank also accepted the cession of the greater part of the *Rentengüter* of Neuenkirchen in the district of Greifswald, and also that of some other properties of this kind belonging to the administration of the Marienwalde, and of two others which had not yet been sold at Annaberg.

The *Rentengüter* of Boeck-Laak in the district of Randow and of Kusow and Marienwald in that of Neustettin have not yet reached the stage of being definitely transformed and are still considered to be subject to the rules for land settlement. In order that a property may pass out of this stage into that of being ready to be ceded or sold difficulties have to be surmounted which are due to the fact that it is not now possible to endow these lands with the buildings they need before their value can truly be realized. When this stage in the preparation of properties intended for settlement is reached it is necessary to pause and await favourable events. The following definite sales were made in 1916: 14 *Rentengüter* having a total area

of 411.08 hectares, and, for cash, the *Restgut* of Temnick having an area of 357.33 hectares.

The other properties which the *Landgesellschaft* owns, including the *Pachgut* of Siemersdorf, form a group of six estates having an area of 6,097.74 hectares and still administered in 1916 as large farms. This is the type of farming which societies of this kind recognize to be the most economical in practice in the period in which the land is gradually being brought to that more productive state which will allow of its cession to settlers, to be held by the various forms of ownership and usufruct. Of the lands which the society has set apart for settlement there remained an unsold area of 677.19 hectares; at the end of the sixth year of its existence the society therefore had 6,774.93 hectares of land at its disposal.

In 1916 offers of property come with extraordinary slowness. No new purchases were made. In connection with the purchase of the estate of Hermannshagen in the district of Franzburg definite agreements were made with the Treasury. It was decided that this estate should be effectively taken over on St. John's Day, 1918.

It was anticipated that during 1917 the progress of land settlement would be impeded, especially by the almost totally stagnant condition of the building trade, by the very high prices of material and by the increasing rate of wages. The society did not conceal its fear that the cost of building would be maintained at its prohibitive level if it did not surpass it. But the society seems to have refused to allow the situation to be mastered by these unpropitious circumstances. It considered it well to take immediately the easiest active course, that is to accept the necessity of simplifying work and building more slightly. The valuation of the properties had been very high owing to the various increases in cost noted in the report of the *Landgesellschaft*, so much so that land settlement was thus rendered much more difficult. The course proposed would naturally lower valuations, and the reporter hopes that after the war they will soon again become normal.

The economic results of the financial year we are considering were, in spite of all, generally satisfactory. On most estates there was an average grain harvest, on some one that was above the average. The yield of forage was good. Vegetables however, and especially potatoes, were with few exceptions below the average. The same is true of the properties managed by the society for they had very bad potato crops. In spite of all, the society could sufficiently meet the demands of communal unions to deliver to them what they wanted.

Some properties of the society suffered from the lack of draught horses and labour, and in these circumstances it was necessary to take thought in order that work might be accomplished by the end of the year, given good weather and a favourable autumn. It was necessary therefore to have recourse to motor-tractors in order to do ploughing.

On the properties of Kaunitz in Rummelsburg district, Schurów-Czierwienz in Stolp district and Drawohn in Bublitz district, the society effected important improvements in spite of the war, thanks to the con-

version of marshy lands to meadows by irrigation and drainage. It was able to employ the labour of prisoners of war. These improvements were as follows :

On the estate of Kaumitz 33 hectares of uncultivated marshy lands were made cultivable, being turned into meadows and arable fields ; 13 hectares of marshy meadowland were drained with a view to transforming them into meadows of high yield ; the irrigation was effected of 62 hectares of meadows on which works of improvement were still in course when the report was made. Other 60 hectares of arable land were rendered dry by drainage works.

On the estate of Schurow-Czierwinz 138 hectares of marshy land were improved. On 50 hectares of marshy land preparatory works were terminated, and the value was developed of 62 hectares of meadowland which were in an unsatisfactory state.

On the estate of Drawehn 22 hectares of marshy land were improved, and on 17 hectares of marshy lands 3,000 metres of drainage canals were constructed.

During the year covered by the report this society also realized progress in the matter of land settlement for the benefit of persons who have suffered by the war. The demand has here been considerable ; but, more or less everywhere, available resources were not proportionate to the desires of those interested. The latter were men of country origin who almost all of them wished to obtain land to cultivate, but since they also wished to have an independent position in the future they could obtain their land only by way of purchase. The indemnities due to them for their sufferings by the war did not however allow them to acquire sufficiently large farms, valuations having risen. It was possible therefore to satisfy the demand of only seven of them. The society's method of encouraging this movement is to effect in favour of these sufferers a cession of the land it intends for settlement. The society's management is always ready to help new settlers as far as possible.

For the purchase of small properties the *Landesellschaft* of Stettin has treated with the magistrates of the small towns of Zanzow, Falkenburg and Pollnow and with a large landowner of the Naugard district. All negotiations in this connection have met with good results, all the better because the condition and position of the holdings in question makes them very suitable for settlement by injured men, and their price is sufficiently low. As regards however taking over the property in the Naugard district, this scheme has had to be abandoned, owing to the fact that certain building was required for which the available contractor asked too high a price.

As to complaints of the undue lengthiness of the procedure for obtaining the capital necessary to the business of land settlement, the society hoped at the end of 1916 that this state of affairs would soon be changed.

During the year covered by the report only one new application was received for the consolidation of a small property. During this year the process of consolidation was applied to 14 peasant holdings having a total area of 448.9369 hectares. From the time the society first undertook busi-

ness of this kind until the end of 1916 it consolidated 191 properties having a total area of 12,955.8779 hectares. Properties of the various categories were included as follows : large farms — 12 having an area of 6,911.7833 hectares ; peasant holdings — 179 having an area of 6,044.0996 hectares. For this transaction as it affected the large farms State securities of the value of 2,450,250.04 marks were employed ; for the 179 peasant holdings securities for 2,698,618.93 marks. The charges borne were reduced by 6.8 per cent. for the large and by 5.15 per cent. for the peasant holdings. This is equivalent to a saving of 16.2 per cent. in the first and 16.87 per cent. in the second case. It should also be noticed that the losses incurred by the owners by the sale of letters of pledge and provincial debt securities have been left out of account. The society was able to make this position more bearable by granting loans at 4 per cent. to owners who had not been able to sell their letters of pledge.

The indebtedness bears on seven properties having an area of 4,562 hectares. Very few owners who consolidated the position of their properties were in arrears as regarded the annual payments they had engaged to make. It was necessary to have recourse to the customary procedure only in two cases.

The guarantee funds of the savings and loans banks managed by the society amounted to 78,589.51 marks, and the society's own funds of the same kind to 122,221.51 marks.

The financial results of 1916 were satisfactory. Most of the large farms yielded a profit and so did one *Rentengut* of the society. The society's securities which are in the market maintained the liquidity of its property. Generally speaking, settlers fulfilled their engagements punctually.

GREAT BRITAIN AND IRELAND

THE FIXING OF AGRICULTURAL WAGES IN ENGLAND AND WALES — *The Labour Gazette*, Vol. XXVI, No. 9, London, September 1918,

Cash Wages. — The Agricultural Wages Board for England and Wales has issued further notices (1) which fix minimum rates of wages for certain counties. These rates are as shown on the appended table.

Hours of Labour. — The weekly wages specified are payable for a week of six working days, generally containing 54 working hours in summer and 48 in winter. In Staffordshire however the working week has 57 hours all the year round ; in Shropshire 57 hours in summer and 54 in winter ; in Nottinghamshire 60 in summer and 54 in winter ; and in Glamorgan and Monmouth 57 in summer and 49 $\frac{1}{2}$ in winter. The number of hours in the working week of the classes of labourers specified is generally determined by local custom ; but in Derbyshire they may not work regularly for more

(1) See our issues for May 1918, p. 436 ; June 1918, p. 526 ; and August 1918, p. 699.

than 63 hours in summer and 65 in winter, or in Denbigh and Flint for more than 61 hours in summer and 58 in winter.

Benefits in lieu of Cash Wages. — An order of the Agricultural Wages Board, dated 6 September, defines benefits which may be taken to constitute part payment of the minimum wages fixed by the Board. They are the following :

1) Milk, including skimmed or separated milk : its value is to be reckoned as equivalent to the current wholesale price paid for it to producers.

2) Potatoes : their value is to be reckoned as equivalent to the current wholesale price paid to producers when the main potato crop was lifted.

3) Lodging except such lodging as the District Wages Committee pronounces to be so defective that it is unhealthy ; its weekly value shall be fixed by this committee.

4) Board, that is any meals given to the labourers ; its weekly value, which shall exclude that of any intoxicating drink provided, shall be determined by the District Wages Committee.

5) A cottage and any garden hitherto given or let with it, unless the Medical Officer of Health has reported that such cottage is so dangerous or so unhealthy that it is unfit for human habitation. The value of a cottage so granted shall be taken to be 3s. a week, less any rent or rates which may be paid by the occupier and which must in no case amount to more than 3s. a week. If however the value customarily attached to a cottage in any district be less than 3 s. a week, or if the cottage granted be defective from the point of view of sanitation, the District Wages Committee may fix its value at less than 3 s. a week.

District	Age of labour- ers affected	Mi- nimu- m week wage	Wages for overtime per hour		Rates to be effective from
			on week- days	on Sundays	
try Labourers :					
Yorkshire	18	35s.	9½ d.	11½ d.	
hamshire.	18	35s.	9s.	10s.	
Lincolnshire.	21	34s.	9½ d.	11½ d.	
	18 to 21	30s.	8½ d.	10s.	
Staffordshire	21	35s.	9s.	11s.	
	20 to 21	34s.	9s.	10½ d.	
	18 to 20	32s.	8½ d.	10d.	
Shropshire	21	33s.	9s.	10d.	
	18 to 21	31s.	9s.	9d.	} 2 September
Kent.	18		10d.	11d.	
Sussex	21	32s.	9s.	11d.	
	18 to 20	30s.	8½ d.	10d.	
	21	33s.	9s.	11d.	
Surrey	18 to 21	34s.	8½ d.	10d.	
Hampshire	18	31s.	8½ d.	10d.	
Dorset	18		8½ d.	10d.	
Cornwall	18	31	9d.	10d.	
Devon	18			10d.	
Brecon and Radnor	18		9d.	10d.	
Northumberland and Durham.	19		10d.	1s.	
	18 to 19	33s.	9d.	11d.	
Herefordshire	18		8½ d.	10d.	
Middlesex.	21	34s.	9s.	11d.	
	18 to 21	31s.	8½ d.	10d.	
Hertfordshire	21	32s.	9s.	11d.	
	18 to 21	31s.	1½ d.	10s.	
	21	36 6d.	1½ d.	11½ d.	} 9 September
Glamorgan and Monmouthshire.	19 to 21	35s.	9d.	11s.	
	21	32s.	8½ d.	10d.	
Pembroke, Carmarthen and Cardigan	21	31s.		10s.	
	18 to 21	30s.		10d.	
Denbigh and Flint.	18	30s.	1½ d.	10d.	
Special Labourers :					
Derbyshire (Stockmen, horsemen, shepherds)	18	36s.	9d.	9d.	} 2 September
Hampshire (Carters, dairymen, shepherds)	18	37s.	8½ d.	10d.	
Northumberland and Durham (Horsemen and cattlemen)	19	38s.	10d.	10d.	} 1s.
	18 to 19	35s.	9d.	11d.	
Denbigh and Flint (team-men, cattlemen, cowmen, shepherds and bailiffs)	18	35s.	8½ d.	8½ d.	} 9 September
Wiltshire (Head carters, head cowmen, head shepherds)	18	37s.	8½ d.	8½ d.	
Norfolk (Sheepcudlers and bullock tenders)	18	35s.		10d.	

PORTUGAL.

FOR THE CULTIVATION OF UNPRODUCTIVE COMMUNAL LANDS. — *Diário do Governo*, No. 201, 16 September 1913.

The government of the Portuguese Republic published on the 14th of September a decree aimed at the encouragement of the cultivation of uncultivated lands. It gives to administrative bodies owning uncultivated lands the power to proceed to an immediate division of these lands in order to cede them temporarily or on long leases to local farmers. It contains a provision for the contribution of the State to the costs necessary to the cultivation of these properties. The preamble to the rules established by the decree show that much dependence is placed on this measure as one fitted to bring about rapidly the scientific cultivation of these lands. They constitute altogether a cultivable area which is not negligible.

We will now resume the chief provisions of the decree :

Municipal and parochial councils are authorized immediately to divide, wholly or partially, the uncultivated lands in their ownership, if the majority of the local farmers ask for such division, and to cede them temporarily or on long leases in order that they may be cultivated. To farmers giving themselves up to cultivation of this kind in 1918-19 and 1919-20 the Secretariat of Agriculture will grant premiums in which the afore-said administrative bodies will participate. The crops to the growing of which the right to a premium attaches are exclusively cereal and leguminous. A premium may not exceed 15 milreis per cultivated hectare, two thirds to go the farmers and one third to the administrative body. The amount of the premiums accruing to an administrative body will be employed, by preference, on constructing and repairing the neighbouring roads giving access to the uncultivated lands.

The Secretariat of Agriculture can also facilitate farmers' purchases of seeds and manures by paying for these up to half the cost price.

The administrative bodies wishing to avail themselves of the power granted by this law should every year, at stated intervals, communicate their desire to the Direction of Agricultural Services of the Secretariat of Agriculture, stating approximately the area it is desired to cultivate and the number of farmers who wish to take advantage of the benefits accruing under the decree. The Direction of Agricultural Services must then order an inspection of the lands in question by competent experts who will name the crops and manures appropriate to each piece of land, and who will instruct the farmers as to the course they should follow in order to obtain the best results.

These same official experts must afterwards keep a register in which will be entered the characteristics and situation of the land cultivated, the

names of the cultivating farmers, the quality, quantity and value of the seeds and manures used, and the yield of crops, together with all other indispensable information, as the amount of the premiums granted. A copy of this register will be sent to the Direction of Agricultural Services.

The area of the lots into which the uncultivated lands may be divided will be fixed in advance by the owning administrative bodies, in agreement with those interested and with the official experts responsible for cultivation. If part of the uncultivated land be needed for pasturage, its boundaries will be fixed by agreement between the aforesaid administrative bodies and official experts.

The temporary assignment of pieces of land will be by lot in the case of a demand by several farmers. Such temporary assignment will be until 1921, after the harvests of which year the farmers will have to surrender the lands ceded to them.

Finally, the decree establishes that the harvests, after the necessary quantities have been deducted for sowing and the consumption of farmers and their families, will be delivered at the municipal granaries, which will pay for them current prices, deducting the price of seeds and manures supplied to the farmers by the State. It is further declared that in virtue of these provisions farmers are forbidden to conclude any business regarding this produce except with the municipal granaries, not excepting business with regard to crops coming under no specially determined system. The Direction of Agricultural Trade has the duty of sending to the municipal granaries a list of the farmers to whom the State has supplied seeds and manures, as by the terms of the decree, and a statement of the amount to be recovered from each farmer.

The administrative bodies who wish to divide uncultivated land into lots to be let to tenant farmers can, on application, obtain help from the Direction of the Physiographic Services of the Secretariat of Agriculture in order to procure topographical knowledge and to make the necessary division and survey.

The importance of this decree of which we have given the chief provisions is evident to all men. Indubitably it is a sign of progress towards an effective agrarian policy, aimed at utilizing land which has for one reason or another been excepted from cultivation.

We should note that these provisions concern only the property of administrative bodies or property of which the profits go to parishes, and that they empower these institutions only to cede such property temporarily or on long leases, the State intervening at the same time to contribute to initial costs of installation.

The granting of premiums is certainly calculated to encourage farmers to take advantage of the decree. If it be widely applied the proposed goal of advancing general economic interests will infallibly be reached.

SPAIN.

THE FORMATION OF AGRICULTURAL COMMITTEES REPRESENTING CORN-GROWERS. — *Real orden disponiendo que en el plazo de quince días se constituya un comité agrícola en cada una de las provincias o regiones en donde esté constituido un Sindicato de fabricantes de harinas* (Royal order providing that within fifteen days an agricultural committee be formed in each province or district in which a syndicate of flour manufacturers has been formed). *Gaceta de Madrid*, 5 October 1908.

The difficulties due to the constant rise in the price of corn in Spain obliged the government to issue on 10 August 1918 a royal decree regulating the production and sale of flour and establishing a system for the purchase of wheat, maximum prices for oats, barley and rice, and conditions for the circulation of these cereals. In order to eliminate the action of middlemen speculating on the price of corn, this decree provides for the organization of flour manufactures in provincial syndicates. The syndicates are exclusively responsible for buying all the corn needed in the flour factories of their respective provinces, in accordance with the order of 10 August already cited, which further establishes that no despatch, or registration with a view to transportation, of corn shall take place, except to one of the aforementioned syndicates, without a special permit of the General Commissariat of Provisioning (1). The *alcades* are strictly forbidden to issue bulletins authorizing the exportation of corn from their communes unless the address of the acquiring syndicate appear clearly in such bulletins.

Under this system the interests of agriculturists were not entirely neglected, for purchases of corn could not be effected except at the prices suitably fixed by the government, but the isolated grower was certainly in an inferior position to the almost monopolist purchasers, all but officially organized in the manner described. This inferiority would be felt not only in all relations dependent on contracts, but also when the government made decisions with regard to the determination of prices. The fact that the complaints of farmers in this matter were well founded was recognized, and on 4 October 1918 the Ministry of Provisioning (2) published a royal order which provides that in all districts and provinces in which syndicates of flour manufacturers exist there be formed special agricultural committees which shall represent and protect the interests of corn-growing agriculturists.

These agricultural committees will consist of from three to five persons nominated by the local agricultural associations or syndicates, each

(1) See our issue for July 1918, page 596.

(2) The ministerial department known as the *Ministerio de Abastecimientos* was created in Spain by a royal decree of 3 September 1918 which confers on it all the functions previously belonging to the General Commissariat of Provisioning of which we spoke in the article already cited.

of which will have a number of votes proportionate to its membership. In the provinces in which no agricultural association or syndicate is active, the committee or the members of the local agricultural committee will be delegated by the provincial council of agriculture and stockfarming. This provision of the royal order we are examining should be specially noticed, for it constitutes an official recognition on the part of the public authority that the institutions formed by the spontaneous association of agriculturists represent rural interests at least morally and in general.

It will be the object of these agricultural committees :

a) to ensure the execution of orders issued by the Ministry of Provisioning and the competent authorities, as regards both the purchase price of corn and the selling price of the flour made therefrom ;

b) to make proposals to the provincial victualling *juntas*, at their request, touching the questions which may arise out of the system of purchasing corn which we have described.

The committees formed will nominate a central committee having seven members. Its president will be the under-secretary of the Ministry of Provisioning. It will have the duty of advising this Ministry in all that concerns the encouragement to be given to corn-growing and the system of selling corn.

It is seen that this official provision marks, in Spain's victualling policy, a progress towards the goal of obtaining a collaboration of the classes interested and the government in order to solve the complicated problems which have arisen out of the need to victual the country.

URUGUAY.

A MODEL CONTRACT OF MÉTAYAGE FOR THE AGRICULTURAL COLONIES OF URUGUAY. — *Asociación Ingenieros Agrónomos. — Homenaje a la memoria del ingeniero agrónomo Juan A. Alvarez Vignoli. Montevideo, 1918.*

We reproduce a model written contract of *métayage* which has been introduced on the proposal of the engineer Juan Angel Alvarez Vignoli and has been widely used in the chief farms of Uruguay. The first to adopt it was the colony of San José, which lies in the south-west of the department of Minas and has a total area of 3,000 hectares. As appears from our authority, cited above, it has been the custom in Uruguay that contracts of *métayage* should be oral only, and grave inconvenience has in consequence attended their execution.

Engineer Alvarez Vignoli has the great merit of being the first to proclaim the necessity of a written contract and has moreover put his idea into practice, himself drawing up a clear model contract of this kind.

This model, which is in truth a perfect specimen of contracts of its kind and which refers to lots in a colony, is as follows :

1) The owner cedes to the *métayer*, from the date of the contract and for six years, a piece of land measuring 36 hectares, to be farmed as a *métairie* on the following conditions :

2) Three hectares are to form natural or artificial pasturage at the *métayer's* choice, 36 ares are to form a kitchen-garden for his use, and the rest is to be employed for the cultivation of grain and other crops according to an agreement between the parties, the *métayer* binding himself to work at suitable times and in the best way possible on the whole area subject to cultivation.

3) All seed will be furnished half by the owner and half by the *métayer*. Wheat seed will be selected and set apart at thrashing time, maize seed when the maize is husked. From the best ears only the central part must be sown. The owner reserves the right to have all or part of the seed deposited in the granaries of the farm.

4) The *métayer* must have at his disposal, as owner or hirer, the following stock in animals and machines : three pair of oxen, two single or double ploughs, one harrow, and the implements used for reaping and harvest.

5) The *métayer's* obligations are : a) to make himself responsible for expenses connected with the maintenance of the farm and of all works of cultivation, for whatever kind of crop they are undertaken ; b) to keep in a good and serviceable state and to maintain boundaries, stockfarming premises, drinking-troughs and roads on the property ; c) to guard crops against noxious weeds.

6) The owner is obliged to have wheat threshed and maize husked at his own expense.

7) If the *métayer* dispose of no seed it will be advanced to him by the management of the colony for a fixed price which the *métayer* must pay with any other accounts, out of the produce of his harvests.

8) Pigs will be kept in common and their propagation will be the business of the management of the colony. The increase will be divided annually, being equally shared, as regards sex and weight, when the maize harvest is divided. The loss in live stock for which the *métayer* is liable must be paid ten days before the maize harvest following on the division begins.

9) Except in case of *force majeure*, a *métayer* who does not sow at the right time land which is to be under crop, or whom the manager of the colony judges to be incapable of sowing it, will be obliged by this manager to obtain the help of the necessary staff, and to become liable for costs so incurred, on pain of having his contract cancelled and being immediately evicted from the farm.

10) The manager or one of his representatives will have the right of entry into the farm at any moment, in order that he may inspect the works executed by the *métayer*.

11) If a difficulty arise while this contract is being applied, the matter will be submitted to amicable arbitration, the arbiters being chosen by

the parties interested. If an agreement be not thus reached the dispute will be settled by a third arbiter nominated by the justice of the peace.

12) Repairs to machines and agricultural implements will be executed in the workshops of the colony. Costs will be shared in equal halves, and will be based on the prices current in the nearest workshops.

It is certain that the adoption of a written agreement for contracts of *métayage* has given good results, for we know that contracts of this form have been used not only in the colonies cited by their author, but also in other districts of Uruguay where their introduction encountered the resistance of an inveterate habit of employing an oral contract.

NOTICES RELATING TO AGRICULTURAL ECONOMY IN GENERAL, IN VARIOUS COUNTRIES,

PUBLICATIONS INTERNATIONAL IN CHARACTER.

ANNUAIRE INTERNATIONAL, DE LÉGISLATION AGRICOLE, published by the International Institute of Agriculture, 7th year, 1917. Rome 1918 (1).

The seventh volume of this International Yearbook of Agricultural Legislation has just appeared. It gives a sufficiently detailed picture, as complete as possible, of the laws and decrees of interest to agriculture which were promulgated in 1917. The agricultural legislation of this year has, in an even more marked degree than that of preceding years, the special aspect derived from the exceptional conditions which influenced its origin. In the first part of the yearbook, which concerns agricultural statistics, there are grouped as before the very numerous governmental provisions for the determination of stocks of primary material and foodstuffs, and for taking census of available live stock. The second part — provisioning, consumption and trade — is even richer and more important than in preceding years: the activity of parliaments and governments in 1917 was largely engrossed by the need to ensure the provisioning of the various countries, to regulate consumption, to fix maximum prices, to prevent and to punish illicit speculation, to regulate the movement of exports and imports. A large number of measures having this object are grouped in this part of the yearbook, the more important being reproduced *in extenso* while of the others only the titles are given. In the third part — measures touching finance and customs — we have, *in extenso* and otherwise, the multiple provisions of governments for increasing, in consequence of the growing needs of the State, the yield of taxes. In this connection we should mention the measures to which the various countries have had recourse in order to tax war profits or increase the yield of these. The fourth part of the yearbook has a particular interest. It contains the provisions published by governments and parliaments for the regulation of agricultural economy in wartime, that is to say all provisions aimed at securing the normal execution of works of tillage and harvest by means of exchanges among farmers or among districts of labour, draught animals, machines and implements. It also contains the measures to bring abandoned lands or lands cultivated with insufficient intensity under cultivation. In the fifth part of the yearbook the various provisions are grouped which were made to ensure the maintenance, in spite of the growing needs of armies, of the flocks and

(1) An edition of this yearbook which contains a translation into English of the table of contents and long introduction is also published.

herds of the different countries and their protection against disease. The increase and the development of the functions of the State, as an effect of existing circumstances, have made necessary the creation of new agencies and the reform, with a view to making them more fit to meet the social needs of the moment, of others already in being. Measures of this kind are found in the sixth part and are classified in several groups according to whether the agencies in question are central, local or mainly consultative. The seventh part of the yearbook contains the provisions which States, in their desire to ensure agricultural production as widely as possible, have made in order to safeguard fields and plantations against the loss caused by disease or noxious animals. In the eighth part are found the numerous measures which favour the development of agriculture by increased credit: many States, both belligerent and neutral, have placed at the disposal of farmers considerable funds which can be lent to these farmers on profitable terms and on suitable security. The ninth part is concerned with property in land and land settlement, and is also very important, particularly in so far as the measures securing the position of land-owners called to the colours and of discharged soldiers are concerned. In this part are found the measures which establish that the term of military service of concessionaries of homesteads, having obligations to cultivate and to reside on their lots, will be counted as a term effectively spent on that lot. Moreover States which have not in recent years made provisions for the granting to soldiers of land intended for settlement have made such provision. The tenth part, which concerns the relations between capital and labour in agriculture, is no less important. In 1917 as in preceding years measures have been taken for the protection of tenants of rural holdings who are called to the colours by empowering them to obtain at the right time the extension or annulment of their leases. This part also contains the laws and decrees which regulate contracts for the hiring of labour, the placing of labour and the regulation of wages. The eleventh and final part concerns rural hygiene and the protection of agriculture.

THE INTERNATIONAL INSTITUTE OF AGRICULTURE.

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ORIGIN OF THE INSTITUTE AND SUMMARY OF THE INTERNATIONAL TREATY.

The International Institute of Agriculture was established under the International Treaty of 7 June 1905, which was ratified by forty governments. Fifty-eight governments are now adherent to the Institute.

The Institute is a government institution in which each country is represented by delegates. It is composed of a General Assembly and a Permanent Committee.

The Institute, always confining its attention to the international aspect of the various questions concerned, shall :

(a) collect, study, and publish as promptly as possible, statistical, technical, or economic information concerning farming, vegetable and animal products, trade in agricultural produce, and the prices prevailing in the various markets ;

(b) communicate the above information as soon as possible to those interested ;

(c) indicate the wages paid for farm work ;

(d) record new diseases of plants which may appear in any part of the world, showing the regions infected, the progress of the diseases, and, if possible, any effective remedies ;

(e) study questions concerning agricultural co-operation, insurance, and credit from every point of view ; collect and publish information which might prove of value in the various countries for the organization of agricultural co-operation, insurance and credit ;

(f) submit for the approval of the various governments, if necessary measures for the protection of the common interests of farmers and for the improvement of their condition, utilising for this purpose all available sources of information, such as resolutions passed by international or other agricultural congresses and societies, or by scientific and learned bodies, etc.

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PRINCIPAL WEIGHTS, MEASURES AND MONEY OF THE VARIOUS COUNTRIES AND THEIR BRITISH EQUIVALENTS.

1 Cadastral arpent (Hungary)	=	1.42201	acres
1 Centimetre	=	0.393715	inches
1 Cho (60 ken) (Japan)	=	119.30327	yards
1 Crown (100 heller) (Austria-Hungary)	=	10d.	at par
1 Crown (100 öre) (Denmark, Norway, Sweden)	=	1s. 1 ¹ / ₃ d.	at par
1 Declatine (a tchetweit) (Russia)	=	2.69960	acres
1 Dinar, gold (100 para) (Serbia)	=	9 ²⁸ / ₆₄ d.	at par
1 Dollar, gold (\$) (100 cents) (United States)	=	4s. 5 ¹ / ₁₆ d.	at par
1 Drachm, gold (100 lepta) (Greece)	=	9 ³³ / ₆₄ d.	at par
1 Egyptian Kantar	=	99.0498	lbs.
1 Feddan Masri (24 Kirat Kamel) (Egypt)	=	1.03805	acres
1 Florin, gold, or Gulden (100 cents) (Netherlands)	=	1s. 7 ⁵³ / ₆₄ d.	at par
1 Franc (100 centimes) (France)	=	9 ³³ / ₆₄ d.	at par
1 Gramme	=	0.03527	oz.
1 Hectare	=	2.47109	acres
1 Kilogramme	=	2.2	lbs.
1 Kilometre	=	1093.613	yards
1 Kokou (10 To) (Japan)	=	1.58726	quarts
1 Lei, gold (100 bani) (Rumania)	=	9 ²⁸ / ₆₄ d.	at par
1 Leu (100 statinki) (Bulgaria)	=	9 ³³ / ₆₄ d.	at par
1 Lira (100 centesimi, Italy)	=	9 ³³ / ₆₄ d.	at par
1 Litre	=	0.21998	gallons
	=	0.0275	bushels
1 Mark (100 Pfennige) (Germany)	=	11 ³ / ₄ d.	at par
1 Mark (100 penni) (Finland)	=	9 ³³ / ₆₄ d.	at par
1 Metre	=	3.28084	feet
1 Milreis, gold (Brazil)	=	2s. 2 ⁶¹ / ₆₄ d.	at par
1 Milreis, gold (Portugal)	=	4s. 5 ¹⁹ / ₆₄ d.	at par
1 Peseta, gold (100 centimos) (Spain)	=	9 ³³ / ₆₄ d.	at par
1 Peso, gold (100 centavos) (Argentina)	=	3s. 11 ³⁷ / ₆₄ d.	at par
1 Pound, Turkish, gold (100 piastres) (Ottoman Empire)	=	18s. 0 ¹⁵ / ₆₄ d.	at par
1 Pund (Sweden)	=	0.93712	lbs.
1 Quintal	=	1.96843	cwts.
1 Rouble, gold (100 kopeks) (Russia)	=	2s. 1 ³ / ₈ d.	at par
1 Rupee, silver (16 annas) (British India)	=	1s. 0d.	at par
1 Talari (20 piastres) (Egypt)	=	4s. 1 ¹¹ / ₃₂ d.	at par
1 Verst (Russia)	=	1166.64479	yards
1 Yen, gold (2 fun or 100 sen) (Japan)	=	2s. 0 ³⁷ / ₆₄ d.	at par
1 Zentner (Germany)	=	110.23171	lbs.

INTERNATIONAL INSTITUTE OF AGRICULTURE
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INTERNATIONAL REVIEW
OF AGRICULTURAL ECONOMICS

(MONTHLY BULLETIN
OF ECONOMIC AND SOCIAL INTELLIGENCE)

Part I: Co-operation and Association

RUSSIA.

THE POPULAR BANK OF MOSCOW

by Professor V. FOIOMIANZ.

The Popular Bank of Moscow was founded in consequence of a resolution of the First National Congress of Co-operative Societies, which met in Moscow in 1908. It should be noted that a scheme existed for the institution at the State's expense of a popular credit bank for the whole Russian Empire. In 1896 a Congress of Trade and Industry at Nijni-Novgorod, in 1905 a National Congress of Representatives of Popular Credit at Samara, in 1906 a District Congress of Popular Credit at Voronege, and in 1907 a Congress of Popular Credit in Petrograd pronounced themselves favourable to it. But the National Congress of the Co-operative Societies of Petrograd, when discussing the institution of such a popular credit bank, declared itself favourable to the creation of a bank of which the sphere would be more restricted and which would seek to imitate the system of the popular Italian banks. On this proposal the Congress resolved as follows:

1) While recognizing the principle that the creation of a general co-operative bank for the whole empire would be necessary to the development of the co-operative organisms, the congress nevertheless deems the institution of a bank of this kind inopportune until the local funds, united

in federations, have developed in Russia; for without this development the proposed bank could not make its business as extensive as is desirable so that its existence would be seriously compromised.

2) It would however be opportune to establish at Moscow a Popular Credit Bank like those active in Italy, on condition it secured from the outset the support of powerful co-operative organizations.

3) In order that this bank might be more intimately attached to the money market, not only co-operative organizations but also individuals might be admitted among its founders, so long as they conformed to the principles of co-operation.

These resolutions were adopted on the report of a special committee which was charged, long before the congress was summoned, to study the question of the foundation of a co-operative bank by the Committee of Rural Insurance, Thrift, Credit and Industry instituted by the Agricultural Society of Moscow. Not only persons accustomed to co-operation but also men of science belonged to this special committee. When the congress had approved the content of the resolutions of the special committee it entrusted to it the drawing-up of a scheme for the institution of the bank, instructing it to submit this scheme to the government.

After the congress had closed, the commission entrusted to two professors of political economy, Mr. W. Geleznov of Moscow University and Mr. Antziferov of Kharkov University, the drawing-up, on the principles enunciated by the congress, of a scheme of by-laws for the popular bank. The persons named drew up this scheme and presented it to the committee. The general lines of the scheme for the institution of the bank were as follows. Since there were no federations of important co-operative societies in Russia, the Moscow Bank of Popular Credit was to lean especially on the co-operative societies of credit and thrift, that is to say on the primary organizations. It also exercises towards these societies the function exercised in Western Europe by the district banks.

It was thought fitting to draw up a scheme which can include the federations of co-operative societies among the members of the bank. These federations might thus become members of the bank as they gradually developed, and the bank might gradually transform itself into an institution of popular credit and extend its operations over the whole territory of Russia. At present, in view of the fact that the primary co-operative organizations must form the principal nucleus of the bank's members, a small co-operative credit society must be taken to be the unit of organization, and the district federations of co-operative societies admitted to be members of the bank merely as representatives of a greater or less number of co-operative societies. Thus it is not the federation as such which appears as member of the bank. The co-operative societies whose union has formed this federation are individually members.

In conformity with this principle each federation will have in the meeting of the bank's members a number of votes corresponding to the number of co-operative societies which belong to it. Besides co-operative societies and federations individuals may be members of the bank under certain

reserves, that is if they have the necessary qualifications for membership of a strictly co-operative society. Individuals granting their financial aid to the bank must not aim at realizing profits, but must be content to think that their capital will be used to develop co-operative credit. In view of the somewhat limited activity which the bank is at first to exercise, its initial capital is fixed at 500,000 roubles in 5,000 shares of 100 roubles each. The bank may begin operations when its paid-up capital has reached 50,000 roubles. Individuals admitted to be members of the bank have a liability limited to the shares they have respectively paid up, but co-operative societies have a much more extensive liability. The liability of each co-operative society is limited to an amount equal to ten times its paid-up shares. All members whose liability reaches 1,000 roubles have the right to an effective vote. This does not apply to co-operative societies from the time their quota reaches 100 roubles but only to individuals having ten shares. Whatever be the number of a member's shares he cannot have more than one vote in the general meeting, a provision which is in the by-laws and which safeguards the co-operative principle.

The bank may regularly : grant loans for short terms of one year or long terms of five years ; open special credits or current accounts ; discount and rediscount bills ; undertake purchases and sales on commission ; carry forward and lend on security to co-operative societies only.

In one case only the bank can discount the bills of individuals, namely when these present for discount bills based on the purchase or sale of merchandise and negotiated at or by the order of co-operative societies. This is to say that the bank does business with individuals only in the interest of co-operative societies.

The by-laws of the bank make no precise provisions as to the limits of the credit which the bank may open to co-operative organizations. The bank has reserved the right to regulate this matter by special rules.

While individuals are regularly excluded from the bank's clientèle where loans and discounts are concerned, they are admitted to unlimited participation in the payment of sums intended for the constitution of the bank's circulating funds — deposits, loans, etc.

Except for the provisions already noticed, by which the right of voting at the general meeting is not directly related to the amount of the shares which a member possesses but to the liability for the bank's engagements which he assumes, the organization of this institution is, in the last analysis and in so far as the general lines of its administrative departments are concerned, analogous with that of a joint-stock bank.

The bank's managing committee has five members, elected for three years from the members on the proposal of the supervising council. This council has from five to nine members, elected for three years by the general meeting.

All the members are admitted to the general meeting, but the right to vote is reserved to members who are liable for the bank's business to the extent of at least 1,000 roubles, that is to co-operative societies holding one share and individuals holding ten.

The net profits of the bank's business are distributed as by the scheme : 20 per cent. go to the reserve fund ; 10 per cent to the special fund for providing long-term loans to institutions of popular credit ; a maximum of 5 per cent. to bonuses to the bank's manager and staff, in accordance with a resolution of the general meeting ; 5 per cent. to a mutual aid fund of the bank's employees in accordance with a decision of the general meeting. The remaining net profits are distributed, if they do not exceed 8 per cent. of the capital in shares, to members as a dividend.

The scheme drawn up by Professors Geleznov and Antziferov for the bank's organization, such as we have described it, was the subject of a series of conferences on the part of a commission, at whose meetings the representatives of trade and industry who were particularly interested were present. The commission accepted the scheme without modification.

The proposed by-laws of the bank are signed by the founders — V. Hubner, retired general ; V. Perelechine, noble ; Sandylene, agricultural engineer. They were deposited, in order that they might receive the necessary approval, at the special office for credit business in the Ministry of Finance. The by-laws were published on 29 September-12 October 1911 in the collection of laws and decrees of the government, No. 154.

Notable amendments to the text of the by-laws were made by the government.

The chief modifications introduced regard the constitution of the bank's capital and the conditions necessary to beginning business. Thus the Minister of Finances has rejected the proposal to fix the amount of a share at 100 roubles and has raised it to 250 roubles. Further the ministry has not consented to the bank's beginning business until its capital has reached 500,000 roubles, that is 50 per cent. of the nominal value of shares or 4,000 shares of 250 roubles, and until this sum has been paid into the office of the Bank of the State of Moscow.

The founders have therefore been obliged to arrange for the placing of the bank's shares within the term fixed by government. They have had to undertake their distribution among co-operative societies — no very easy matter.

The organs of the co-operative press remark that at a given moment the difficulties actually seemed insurmountable, and that the founders thought of offering the available shares to foreign co-operative societies. Proposals to this effect and favourable answers were actually received. But it was not necessary to have recourse to this expedient because the founders were able to place all the shares in Russia.

Altogether 3,822 shares have been placed, distributed as follows : 80 shares have been bought by two popular credit funds of *zemstvos* ; 1,339 by 701 co-operative credit societies ; 678 by 290 credit and savings funds ; 63 by 13 urban and *volost* credit and savings funds ; 31 by four co-operative credit federations ; 57 by two federations of buttermaking *artels* ; 81 by 42 co-operative creameries ; 200 by the Muscovite Union of Co-operative Consumers ; 491 by 227 co-operative consumers' societies ; 52 by 18 agricultural co-operative societies ; 38 by 9 credit and mutual aid societies ;

35 by 9 labour societies ; 4 by 2 co-operative associations ; 8 by 4 delegations of zemstvos ; and 605 by 160 individuals interested in co-operation, forming, that is, at least 15 per cent. of the total number of shareholders.

The shareholders were thus distributed at the time of the constitution of the Popular Credit Bank of Moscow.

The bank's capital was fixed at a million roubles divided into 4,000 shares of 250 roubles each, of which half had to be paid up and deposited at the State Bank six months after the by-laws had been sanctioned.

The organizers feared that they would not be able to collect the necessary 500,000 roubles in time if they had recourse only to the co-operators. They therefore thought of inviting individuals to subscribe also.

Further, doubts were expressed as to the power co-operative credit societies had to subscribe for the shares of the Popular Bank of Moscow. The organizers were on the point of addressing themselves to the government in order to ask for a delay sufficient to allow them to collect the desired capital, but their fears were vain. Russian co-operation honourably sustained the trial. The capital was entirely subscribed before the constituent assembly of shareholders was summoned, and more than half of it was paid to the State bank in conformity with the law of 1 October 1911. The bank's capital was entirely paid up, and in the following month the payments of ulterior subscriptions began.

As we have seen, of the 4,000 shares issued 85 per cent. were bought by the co-operative societies, and only 15 per cent. by individuals of whom the majority were interested in the co-operative movement. Thus it is possible to assert that the first Russian co-operative bank is entirely owned by the co-operative societies to whom its management is subordinated. All districts of Russia have not participated equally in this subscription. The southern provinces subscribed 34.5 per cent. of the shares. Next to them come the central provinces — 27.5 per cent., Siberia — 15.6 per cent., the south-west provinces — 8.7 per cent., the region of the Volga — 7.4 per cent., the north — 4 per cent., and finally the western provinces — 2.3 per cent.

The chief object of the bank is to furnish capital on credit to the Russian co-operative societies in proportion to their needs and on profitable terms. When the bank first became active at Moscow, on 9 May 1912, the public in general and the capitalists in particular were very sceptical about it. The speedy ruin of the enterprise was prophesied, but experience has proved that co-operation is a real force, able to work miracles.

As early as the first year of its life the applications for loans which the Popular Bank of Moscow received from co-operative societies were very numerous in spite of the high rate of interest it demanded. The following course was adopted in order to satisfy the need for credit.

Above all the bank does not enter into business relations with individuals and commercial firms and does not finance private enterprise. The only exception to this rule occurs when the bank has to act as an intermediary in the interest of co-operative societies. But even when there is question of granting credit to co-operative societies the bank must observe

strictly a criterion of sound economic policy. Thus, the sums lent must not exceed a certain proportion of the amount of the bank's capital in shares which the co-operative society holds. If there were not conformity with this criterion the demand for credit would simply exceed, and by a large sum, the bank's capital assets. On the other hand, by adopting the course we have indicated the bank will always be in a position to supply the needs of the co-operative societies which hold its shares.

The co-operative societies have themselves, from the beginning of the bank's existence, contributed to increasing deposits and feeding current accounts. Deposited sums have mostly emanated from the co-operative societies situated nearest Moscow. The bank has sought to supply the need for credit wherever local economic conditions have made it most urgent. In the first year of its activity it had to give special attention to the co-operative movement in the south, the district most interested in its foundation and most in need of credit. As early as the bank's second year of business a new issue of shares, amounting to a million roubles, was made.

The participation of the southern provinces was preponderant — representing 40.2 per cent. as against the 25.1 per cent. of Central Russia and the 9 per cent. of Siberia in the beginning of 1914; and this had to be taken exactly into account in distributing the loans granted. The debtors appeared in the following descending order: the co-operative societies of the south, of the centre, of Siberia, of the Caucasus, of the region of the Volga, of the north and the region of the Ural.

For some time the circles interested in the bank feared it might lend sums emanating from one district to co-operative societies in other districts, to the detriment of the former, but this fear was recognized to be unfounded. The bank sought to develop its activity in all districts equally. During its first year the co-operative societies applied for less loans than those to which they had right, but from the second year onwards all districts made more demand for loans within the limits imposed by their participation in the share capital.

During its first financial year the bank's position was very difficult because of the condition of the money market. Discount interest was very high both in Russia and abroad and the bank's discounting business was consequently limited. Another inimical factor was the refusal of the State Bank to open up a credit for it even within the most modest limits. This hindered the discounting business of the Popular Bank with private banks. Interest on discounting remained at a high rate while the credit accounts opened were limited, and the bank did not succeed in obtaining outside credit. In compensation, however, the bank's position in so far as the movement of deposits and current accounts was concerned was very favourable. The bank accepted deposits even of kopeks, that is to say even of small change, for a kopek is worth about a farthing. Each depositor who had 5 roubles entered in his credit book had a small savings fund opened for him. This tended to encourage saving on the smallest scale, and met with a great success which it deserved.

The method by which the Popular Bank of Moscow granted credit was dictated by its position as financial centre of the whole co-operative movement in the country, and also by its own initial financial weakness. The bank had need to exercise an effective supervision of its clients for the co-operative societies are dispersed over an enormous territory. Its resources during its first years were too limited to allow its supervision to be effective; offices and an expert staff would have been necessary for this. It therefore sought support especially from the centralized co-operative societies and other institutions, such as provincial deputations or zemstvos, and from the small popular banks in so far as they acted as centres of co-operation.

In districts in which there were neither co-operative federations nor other similar institutions, the bank sought to form centralized organizations, unifying and co-ordinating the activity of co-operative societies in each district in order to establish there a local agency of the bank. Such an agency was to connect the bank with the societies, and at the same time to exercise within limits that supervision which is necessary to ordinary relations between the bank and its clients. The bank informs itself, by means of these agencies, as to the moral and financial condition of the local co-operative societies, their resources and the possibility of forming more of them. Its principal task is always that of uniting existing co-operative societies in a central organization able to help the bank to collect local capital and distribute it among the co-operative societies interested. The important point is that the money should remain in the possession of the societies and not go to feed the private enterprise of speculators. The funds of the various local co-operative societies should therefore be united at the bank's agency in order that they may be equitably distributed in accordance with local needs. It is only when these needs have been satisfied that the remaining sums pass to the Moscow bank to meet the demand for credit of the other co-operative societies, and thus a constant circulation of credit is maintained. The demand in question varies with districts and seasons. Thus in autumn, when the peasants have no need of money, it is needed by the Siberian dairy societies. In such cases the bank can, by means of its local agencies, direct the stream of necessary credit.

The third issue of shares took place at the end of 1916 and was for 2,000,000 roubles. All the capital had then been subscribed by the co-operative societies and, as the following table will show, only 8.4 per cent. is now in the hands of individuals.

The bank is preparing for its fourth issue of shares, to amount to 6,000,000 roubles. It is also doing banking business, but naturally it does not advance funds to the enterprises of speculation. To improve the condition of the most distant districts it has opened branches at Rostov on the Don, a centre of zones which have rich deposits of coal, and has installed numerous agencies in other towns. It has formed permanent commercial agencies at London and New York in order to maintain its connection and develop its relations with the whole world.

The following figures give an idea of the bank's progress in recent

years, in spite of the war. On 13 January 1915 the monthly turnover was 8,500,000 roubles. One year later it was 28,000,000 roubles, and on 1 September 1916 50,000,000 roubles. Thus in a year and a half the importance of its monthly balance-sheet was multiplied by six.

The bank's deposits reached, on 1 January 1915, 4,000,000 roubles; a year later 10,000,000 roubles; and on 11 September 1916, 22,000,000 roubles or six times the initial sum to which they amounted a year and a half earlier. The annual balance-sheet for 1915 amounted to 240,000,000 roubles; and it rapidly increased in the first eight months of 1916, reaching 490,000,000 roubles.

The bank does not limit its business to advancing funds to co-operative societies in need of credit. It has had to extend it and to organize with co-operative societies the purchase of articles necessary to agriculture, and this on a large scale and by the help of its remarkable economic power. The bank for that matter merely follows in the traces of the co-operative credit societies, which were themselves obliged to go beyond the limits of their initial programme. They were at first intended to furnish capital to their members, but eventually they undertook the purchase of machines, food supplies and other articles. The bank thought itself obliged first to organize as quickly as possible the purchase of primary material for co-operative societies, which would otherwise fall into the power of wholesale dealers and the agents of these, exactly as a simple peasant falls into the clutches of the usurer in his time of need.

With this object the bank obtained from the government an authorization to open buying offices which soon had a great success. A buying office is in a better position to know the state of the market, for it uses for this end its connection with the co-operative societies, ascertaining the exact needs of its clientèle and finding out the best means of satisfying these needs. The elements of information on these points which co-operative societies possess allow a buying office to enter into relations with the most suitable manufacturers. It causes a small sum to be paid to the co-operative societies — from 1 to 3 per cent. — for various costs, and a sum which is added to the bank's interest for the fund intended to provide members' dividends.

The bank's buying business was limited for the first year. Its amount did not exceed half a million roubles but it kept pace with the bank's progress. The buying office bought for the farming year of 1917 more than 125,000 ploughs, more than 30,000 tons of manure, an enormous quantity of tiles for country dwellings and the most varied articles used by the agricultural population. The bank concluded an agreement with the society of provincial deputations, the zemstvos of Orzov, and with the same society of Kiev, for making purchases in common with a view to obtaining better terms. Hardly had this agreement been made, when ten unions of co-operative credit societies and two of the largest agricultural consortia came to another and identical one with the bank. Thus the banks makes, purchases in combination with the strongest organizations in the country fixing common purchase prices for all contracting parties. The Ministry

of Agriculture itself took part in this agreement in 1916. The representatives of the Union of Co-operative Societies were invited in 1916 to take part in this buying office, which has thus become a Pan-Russian centre for co-operative purchasing.

Beyond the business of buying on behalf of co-operative societies, the bank's office began to buy the produce of co-operative societies on commission to sell it in Russia and elsewhere. This new branch of its business was not active for long, owing to the war, but in the few months for which it was at work the bank was able to sell in Great Britain about one hundred carloads of eggs from the region of Pensa and more than 35,000 puds of flax belonging to various producers' societies. This attempt to sell eggs abroad was really successful from a commercial point of view, although the co-operators were competing with egg exporters and had to content themselves with rather low prices. On the other hand, the bank's exportation of flax succeeded in every respect. Within Russia the buying office sold various foodstuffs, as well as terebenthinate and resin, on behalf of the co-operative societies of Arcangel.

However, as soon as the independent buying agencies were formed, like that of the flax-spinners, the buying office made over to them its connection, continuing merely to supply funds to them as co-operative societies.

In 1915 the site was bought which is now that of the imposing building which is the bank's premises and is called the Palace of Co-operation. Thus the Popular Bank of Moscow is the cement which keeps the Russian co-operative movement solidly united. At the bank's meetings about 500 representatives of the co-operative unions deliberate as to the means of developing and strengthening, more and more, the mass of the co-operative institutions.

The last general meeting as to which we have any information took place on 16 December 1917, being called to consider an issue of new shares amounting to 25,000,000 roubles.

The following are some of the resolutions of this meeting :

The managing council is authorized to ask the Minister of Finances for the necessary permit to make a new issue of 100,000 shares having a nominal value of 250 roubles. The shares are to be issued at 260 roubles, 250 roubles to constitute the share-capital, 5 roubles to go to the capital reserve and 5 roubles to cover the costs of the issue. The meeting further resolves that all the co-operative unions are authorized to take a certain number of shares proportionate to their participation in the formation of the capital : holdings amounting to 25,000 roubles give a co-operative union the right to two shares ; those going up to 50,000 roubles the right to four shares ; 100,000 roubles to six shares ; 200,000 roubles to ten shares ; other ten shares for every additional 100,000 roubles.

After the general meeting a special conference of shareholders was held, at which was read the managing committee's report as to the foundation of new branches of the bank in the towns of Saratov and Vologda in European Russia and Omsk and Tcita in Siberia, and as to their business.

This conference also received the report of the Director of the Office of the Ministry of Provisioning, Bresslavetz, as to the duties of co-operation with regard to the organization of the exporting of foodstuffs after the war. Finally the conference resolved to hand over to the buying office for examination the problem of exporting the produce of co-operative societies and cognate enterprises accomplished by the economic section of the executive committee of the Pan-Russian Congress of Co-operative societies.

According to telegraphic information as to the bank received by its London agency, its business was on 23 January 1918 pursuing a normal course. The bank's name was not included in the list of banks subjected to nationalization by the State Bank established by the Bolschevik government. It has even gained in importance immensely because it has absorbed the deposits of a number of private banks. Now, at the end of 1918, it is perhaps the most important financial centre of co-operation. Its deposits reach three billion roubles, an enormous sum for an institution formed to encourage the co-operative movement, even if the fall in Russian values be taken into account. It has been spared nationalization because of its economic and moral aim, and is today the most powerful and the most accredited financial institution in Russia.

But the disorganization of economic life during this last year of continual revolutions and disturbances has given birth to a series of difficulties which impede the bank's business, especially the lack of a metal reserve and the fall in the value of State paper. At first the State Bank supplied the banks of Moscow with about 10,000,000 roubles a day for their business but this sum has fallen to 400,000 roubles. The bank's business is now limited to deposits and current accounts, for it is not possible, as it was in the past, to open credits for co-operative associations.

We reproduce the last balance-sheet published by the bank.

Balance-Sheet on 1 April 1918..

	<i>Assets</i>		
	at the Central Office roubles	in the branches roubles	total roubles
In hand and current accounts in banks	49,445,528.11	48,699,778.96	98,145,307.10
Real estate.	1,130,347.05	334,774.44	1,265,121.49
Bank's own capital.	22,467,166.28	1,211,026.63	23,672,192.91
Discount of short-term bills, commercial bonds and Treasury bonds	21,534,197.42	20,065,996.32	41,600,193.74
Special current accounts secured by bills.	40,398,019.02	13,515,032.21	62,4913,051.23
Special current accounts secured by merchandise and invoices . . .	29,810,230.71	54,884,107.48	84,694,338.19
Special current accounts secured by securities	2,589,395.81	2,055,542.31	4,645,478.15
Sums credited on railway shares, term loans, duplicate scrip and bills being deposited	43,992,646.56	16,323,818.07	60,316,464.63
Bank's correspondents: to their account	12,424,245.49	—	12,424,245.49
to account of the bank.	26,393,385.27	—	26,393,385.27
Accounts of management with branches	29,283,123.17	38,914,320.10	68,197,443.27
Protested bills	96. —	—	96 —
Current expenses	716,025.91	509,866.95	1,225,892.86
Installation and working	379,216.68	308,915.41	668,132.09
Clearing	2,871,799.74	3,216,635.35	6,091,435.09
Advances to suppliers on account for purchasers	10,033,314.77	960,607.61	10,992,922.38
Recoverable expenses	158,195.36	4,110.25	162,524.61
Debtors for business as intermediary	1,276,392.11	585,686.51	1,862,078.62
Foreign securities with foreign correspondents	1,837,272.45	456 —	1,837,728.45
Purchase and sale of merchandise on commission	16,054,470.34	1,490,770.07	18,454,240.41
Expenditure in 1919.	11,984 —	—	11,981 —
Total . . .	325,704,702.28	202,890,453.70	528,595,155.98
 Bills on commission	 26,953,687.15		
Deposited securities	13,001,575.25		
Paper securing special current account	9,856,140 —		
Commissions for co-operative societies	4,208,666.60		

Liabilities

	at Central Office roubles	in branches roubles	total roubles
Capital in deposits	10,000,000 —	—	10,000,000 —
Reserve capital	352,919.29	—	352,919.29
Amortization fund	120,070.45	—	120,070.45
Deposits and current accounts . . .	168,409,056.62	143,325,547.12	311,734,603.74
Transactions with bills	7,961,324 —	—	7,961,324 —
Special accounts in banks	37,837,517.25	8,811,784.43	46,649,300.68
Correspondents : to their account . .	2,449,052.25	—	2,449,052.25
to account of bank	7,392,220.75	2,892,869.97	10,285,201.72
Accounts of central management with branches	38,787,042.33	29,724,169.56	68,512,110.89
Interest and provisions received . .	723,510.87	2,199,648.44	2,923,159.31
Sums for business entrusted to others	5,770,616.94	3,084,415.84	8,855,032.78
Unpaid mandates	1,552,551.97	4,341,705.62	5,894,257.15
Interest due on deposits and current accounts	1,313,856.02	681,302.05	1,998,158.07
Taxes	830.74	11,105.84	11,936.58
Clearing	8,800,928.48	6,790,174.38	15,591,103.86
Advances of purchasers	16,574,488.66	861,070.24	17,435,558.90
Creditors for business as interme- diary	116,660,734.11	163,460.21	16,824,194.32
Unpaid dividends	113,750.40	—	113,750.40
Interest for 1919	2 —	—	2 —
Funds in name of Blinov	10,500 —	—	10,500 —
Net profits for 1907	872,698.25	—	872,698.25
Total	323,704,702.28	202,890,152.70	528,595,155.98

MISCELLANEOUS INFORMATION RELATING TO CO-OPERATION AND ASSOCIATION IN VARIOUS COUNTRIES.

AUSTRALIA.

THE ROYAL AGRICULTURAL SOCIETY OF NEW SOUTH WALES.—*The R. A. S. Annual*, 1917. Sydney, 1918

In the year 1917, the Royal Agricultural Society of New South Wales made more important progress than in any other of the twelve years of its existence. The membership of the society increased during the year from 2,900 to 3,340; about 900 new members were admitted, but many old members failed to rejoin. There were also substantial increases in the revenue from the principal sources, and the work of the society was unusually successful. The Royal Show, held at Easter, was the largest ever organized by the society. Contrary to previous practice it was open at night as well as in the day time and this innovation proved very popular. The number of visitors to the show totalled 444,000. The receipts from entrance fees amounted to £18,100, while the total receipts for the show were £30,700. The prizes and other expenses were very heavy, but there remained a balance of £12,094 to profit.

The council was approached early in the year by the Committee of the New South Wales Sheepbreeders' Association, which proposed that the Royal Agricultural Society should take over the annual sheep show. A scheme was adopted whereby the society will take over the sheep show, and the management will be conducted by a joint committee of the society and the Sheepbreeders' Association. The sheep section in connection with the Royal Show will be discontinued and, as far as the sheep-breeding industry is concerned, the society will concentrate its efforts on the annual sheep show, which will be held in June.

A circulating library is being organized to which members may become subscribers on the payment of a small additional fee. The council also decided to assist agricultural education by voting funds to keep one student at Hawkesbury College for three years and to provide an exhibition of £100 at the university every year.

CEYLON (BRITISH COLONY)

THE PROGRESS OF CO-OPERATIVE CREDIT IN 1917-18 — *Ceylon Administration Reports: Report of the Registrar of Co-operative Credit Societies for 1917-18, Colombo, 1918.*

The agricultural co-operative movement in Ceylon only started in 1913, when the success of co-operative credit in India was already assured, and Ceylon has been able to profit by the experience acquired under the varying conditions of the Indian provinces. It had not, however, up to March 31st., 1918, progressed beyond the initial stage of the formation of local societies, no attempt having been made to form federations or central societies.

The number of societies registered in 1913-14 was 31, in 1914-15, 23; in 1915-16, 1; in 1916-17, 16, and in 1917-18, 31. This makes a total of 102 societies registered, but in 1917-18 the registration of 10 societies was cancelled, so that the number of societies in existence on March 31st., 1918, was 92. It is the policy of the Registrar to remove from the register any society which is not working or does not show satisfactory progress. There were still 7 societies that were not considered to be satisfactory and every assistance was being given to them with the object of improvement. On the whole, however, the condition of the societies was regarded as far more satisfactory than at the end of the previous year. Of the existing societies 49 were classified as "good"; 28 as "fair"; 4 as "bad"; while 8 were recently formed and 3 were not working.

The following table shows the progress in the number, membership, paid-up share capital and reserve fund of the societies, dividing them into "agricultural" and "non-agricultural" societies:

Year	Number		Membership			Paid-up Share Capital			Reserve Fund		
	Agri- cul- tural	Non- agri- cul- tural	Agri- cul- tural	Non- agri- cul- tural	Total	Agri- cul- tural	Non- agri- cul- tural	Total	Agri- cul- tural	Non- agri- cul- tural	Total
						Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1915-16	54	1	55	4,036	32 4,068	20,759	175	20,235	1,462	2	1,465
1916-17	68	3	71	5,900	61 6,027	32,707	286	32,994	3,222	23	3,245
1917-18	84	3	92	9,285	260 9,551	46,181	2,367	48,540	6,452	222	6,674

The aggregate balance sheets of the societies in 1916-17 and 1917-18 are shown in the following table:

Assets	1916-17	1917-18	Liabilities	1916-17	1917-18
	Rs.	Rs.		Rs.	Rs.
Cash in hand	5,116	5,669	Loans from Government and others	3,180	7,076
Cash in bank	5,372	6,055	Deposits from members	486	2,954
Loans due by members .	27,818	50,209	Share Capital .	32,994	48,549
Reserve fund in bank . .	884	1,984	Interest and bonus due by societies .	367	392
Value of stock in hand	410	836	Reserve Fund	3,245	6,675
Other items	873	1,255	Other items	201	382
Total	40,476	66,029	Total	40,476	66,029

The slight apparent discrepancies in the totals in this and the previous table are due to the omission of the cents for the purpose of simplification.

The marked increase in the loans due by members is an indication of the growing activity of the societies. The following statement shows the position in regard to the loans :

Year	Loans given		Loans recovered		Loans outstanding	
	No	Amount	No.	Amount	No	Amount
		Rs		Rs		Rs
1916-17	956	28,381	504	15,222	680	27,818
1917-18	1,127	41,407	764	31,305	1,316	50,209

The repayment of loans was, on the whole, satisfactory. The amount of loans which were overdue on March 31st., 1918, was Rs 7,743

The majority of the loans issued were for cultivation purposes but loans were also given for the following purposes : purchase and lease of land : purchase of seed, cattle, carts and manure ; carpentry and furniture manufacture : gold and silver work ; pottery manufacture ; purchase of sewing machines ; purchase of materials for basket-making ; sewing and dress-making ; dealing in vegetable products, and the redemption of old debts.

There is a tendency amongst the societies to reduce the rate of interest on loans to members. The rates range from 6 to 12 per cent., while the rates of interest on deposits vary from 2 to 5 per cent.

The principal source of the money used to advance to members was the

share-capital—a proof that the business of the societies was still in a rather rudimentary stage. The deposits and the bulk of the reserve funds were also utilized in making loans. Up to March 31st., 1918, seven societies had received loans from Government amounting to a total of Rs. 4,385, of which Rs. 488 had been repaid, and six other societies had been recommended for loans of the total amount of Rs. 4,500. Government loans to societies are now made at an interest of 5 per cent. per annum.

The business of the societies is not entirely confined to the giving of credit. Some of them supply their members with agricultural manures, and this business is steadily increasing. In 1915-16, 81 tons of manure were supplied of the value of Rs. 6,844; in 1916-17, 99 tons of the value of Rs. 7,528; in 1917-18, 160 tons of the value of Rs. 13,591. "There is no doubt," says the Registrar's Report for 1917-18, "that this part of societies' operations is appreciated by members. Some societies which were finding it difficult to commence operations found that by handling manures new members were easily secured and that their business improved and became popular." It has not been found expedient, however, to allow the societies to have an entirely free hand in the ordering of manures. No manures are now allowed to be ordered by societies, except through and with the sanction of the Registrar. The quantities allowed to each society at any one time are judged by the known working methods of the particular society and its financial position at the time of ordering. Societies that are efficiently managed are allowed liberal supplies of manures for their members, while others not so well managed are only allowed smaller quantities.

The societies were supplied with considerable quantities of seeds both by the Government and by the Ceylon Agricultural Society, and took steps to increase the food production in their respective spheres. Arrangements were also made with the Agricultural Society for the organisation of local agricultural shows and garden competitions under the auspices of co-operative credit societies. Five shows were held in 1917-18 and eight others, besides ten garden competitions, were arranged for.

FRANCE.

THE CHAMBERS OF AGRICULTURE BEFORE PARLIAMENT — Reports of meetings of the Senate; meeting of 22 November 1908.

On 22 November 1918 the Senate passed a proposal for a law tending to create Chambers of Agriculture.

The question is one of creating not only Chambers of Agriculture having a purely consultative character, but also organs of agricultural activity having sufficient budgets to allow them to undertake certain enterprises which will tend to ensure agricultural progress.

The first characteristics of the scheme is that the Chambers will be neither cantonal, nor attached to *arrondissements*, nor even departmental, but will represent whole districts, thus deriving necessary authority. The

departmental sphere has been thought to be too narrow not only for agriculture but also for all economic interests.

The scheme sets up in each department a Departmental Agricultural Committee, to be elected by the direct votes of farmers and agricultural labourers and to have one member for each canton. This committee will, when it is formed, nominate certain of its members who will compose the Chambers of Agriculture, these being thus constituted by votes of the second degree.

The voters' list will include the names of farmers, owners of rural real estate, labourers who have been attached to one farm for two years and former cultivators. The vote is given to women.

The Senate has given a real independence to the Chambers of Agriculture because it does not wish them to be looked upon as administrative organs.

Resolutions are exempt from all interference on the part of the ministerial or prefectural administration, but this independence does not amount to a systematic exclusion of the services of the Ministry of Agriculture.

The Chambers of Agriculture will be compelled to meet at certain intervals of time.

In its entirety the scheme causes those interested themselves, in the person of mandatories they choose freely, to give their opinion to the government and take necessary initiative. It will even be obligatory to consult these Chambers on certain subjects connected with agricultural legislation, transport, customs and technical education.

The scheme was unanimously passed by the Senate and has been transmitted to the Chamber of Deputies.

HUNGARY.

THE ACTIVITY OF THE DISTRIBUTING AND WHOLESALE SOCIETY OF THE UNION OF HUNGARIAN FARMERS IN 1917 — *International Co-operative Bulletin*, 11th Year, No. 11, London, November 1918

This society of Hungarian farmers, which is known as the *Hangya*, made considerable progress in 1917 and thereby contributed much to hindering speculation.

Since the outbreak of war no fewer than 470 new *Hangya* societies have been established, and the membership of the older societies has increased to an extent which has doubled the total membership.

During 1917 the *Hangya* bought 5500 square metres of land on which to erect new central premises. In September 1917 the Hungarian Foreign Trading Company, Ltd., was established by the *Hangya* Society, the *Hangya* Industrial Company, Ltd., the Hungarian Discount and Exchange Bank and the Hungarian Banking and Trading Company. The share capital of the new enterprise was 3,000,000 crowns. Its chief aim is the purchase of goods abroad and the sale to foreign countries of the products

on Hungarian agriculture and industry. Its importance will naturally not be felt until normal conditions have been restored.

The Hangya has decided to make ten grants of 2,000 crowns each and as many of 500 crowns each to facilitate study at the Imperial Commercial High Schools and the Budapest Trade Academy.

The War Aid Fund of the Hangya increased from 377,860 crowns to 1,000,000 crowns during 1917. A fund of 100,000 crowns, the interest on which goes to remunerate the managers of stores, was increased by 200,000 crowns: the interest on this fund was divided among fifty managers of stores at Christmas 1917.

Donations amounting to 290,064 crowns were allotted to various institutions and benevolent societies. The losses sustained by 127 societies through the Rumanian invasion of Siebenburgen were covered by loans, free of interest, amounting approximately to 1,500,000 crowns.

The trade done by the Hangya Industrial Company, Ltd., a sister organization to the Hangya, covered 8,000,000 crowns.

The Budapest distributing society called the *Hazartas*, which is affiliated to and under the management of the Hangya, had, in 1917, 16,858 members and 232 employees, and did a trade of 12,600,000 crowns as compared with one of 6,700,000 crowns in 1916. It owns nineteen stores, a butchery, boot-repairing workshops and a sawmill. A sum of 2,000,000 crowns was paid in war bonuses to employees and their families, and 1,000,000 crowns were allocated to the employees' pension fund.

The trade done by the Hangya in 1917 amounted to 87,856,900 crowns as against 57,573,133 crowns in 1916. A sum of 2,175,000 crowns (2 ½ per cent.) was paid to members as dividend. The society's net profits amounted to 1,823,801 crowns. Of this sum 318,495 crowns were paid as interest on shares; 179,959 crowns to the directors as a percentage of profits and 1,300,000 crowns to the reserve fund, while 25,346 crowns were carried forward to the next account.

Assets were the following: cash in hand 336,326 crowns; stock in hand 7,448,912 crowns; outstanding payments 7,846,346 crowns; claims on bills of exchange 2,609,700 crowns; securities 5,717,365 crowns; deposits 3,015,456 crowns; property 3,860,000 crowns; plant and fixtures 1,853,389 crowns.

Liabilities were: share capital 6,519,900 crowns; outstanding debts 15,457,956 crowns; guarantees 1,100,000 crowns; unpaid dividends 19,640 crowns; mortgages 1,842,419 crowns.

The reserve fund amounted to 2,500,000 crowns; the depreciation fund to 1,700,000 crowns, the war aid fund to 1,000,000 crowns; and the employees' pension fund to 2,023,858 crowns.

The societies affiliated to the Hangya numbered 1386 in 1916, had a share capital of 8,014,720 crowns, a membership of 292,062 representing 1,941,315 households, a turnover of 107,278,794 crowns, and reserves amounting to 7,989,593 crowns.

OTTOMAN EMPIRE

CONSTITUTION OF A SOCIETY OF AGRICULTURAL ORGANIZATION. — *Wirtschafts-zeitung der Zentralmächte*, 30 August 1918

It has been decided to constitute a great agricultural association having the following aims : the letting of properties held by a single tenant which will be cultivated by the most improved methods ; the importation and manufacture of implements and material which Turkish agriculturists will be able to hire or buy by graduated payments ; the importation and manufacture of artificial manures ; the holding of courses of instruction and lectures for agriculturists. Bureaux of information will be set up in the various districts and will inform the rural population on all points of interest. Instructions as to the use of modern implements and material will be disseminated in the country. Repairing shops set up in different parts of the country will make it possible to keep machines and material in a good state ; and a body of permanent inspectors of machines will moreover be formed. The capital of the association is fixed provisionally at 150,000 Turkish pounds.

RUSSIA.

CO-OPERATIVE CREDIT IN RUSSIA IN 1917. — *The Russian Co-operator*, Vol. 2, No. 12, London, November 1918.

Precise data as to the situation in Russia in 1917 of the organizations of small credit are incomplete owing to the deep disturbance arising out of the revolutions of February and even more of November 1917. Some information extending to 15 October 1917 is however available, especially as regards the number of co-operative societies and the government aid given to co-operative credit.

The following figures give information on the first of these points :

	To 1 January 1914	1915	1916	15 October 1917
Credit societies . . .	10,695	11,465	11,972	12,114
Saving associations .	3,891	4,108	4,289	4,363
Credit unions	11	25	83	136
Rural clubs	232	254	281	281

This table proves a remarkable increase in the number of credit unions but a considerable decrease in that of the other associations. In 1914 the number of credit and savings associations increased by 1,328 ; in 1915 by 987 ; in 1916 by 688 ; and in 1917 down to 15 October only by 216.

This figure would indeed have been somewhat larger had it been possible to collect more complete information ; but it cannot be doubted that the general conditions which have latterly affected co-operative credit have, together with the absence of workers, caused the growth of credit societies to be insignificant.

The following are the available figures as to the sums granted by government to meet the needs of small credit :

To 1 January 1917	397.5 roubles
To 1 March 1917	406.9 "
To 1 April 1917	409.7 "
To 1 October 1917	456.6 "
To 1 November 1917	473.6 "

Thus from 1 April to 1 November the amounts of government assistance increased by nearly 70,000,000 roubles, mainly owing to allowances to credit unions. The increase coincides with the growth in the number of the unions, and was apparently the result of the appointment to the management of the Board of Small Credit of K. I. Krylov who was commissioned by the Council of All-Russian Co-operative Societies together with the central committee of the representatives of co-operative organizations.

Up to 1 April 1917, 82 unions, still under the old management of the Board, were allowed 5,000,000 roubles for capital and 1,900,000 roubles as short-term credits. Thenceforward until 1 October 92 unions were allowed 14,000,000 roubles for capital and 23,200,000 roubles as short-term credits. Further 17,000,000 roubles were lent as a measure of urgent aid.

Up to 1 October small credit institutions were also granted, as long-term loans, 9,600,000 roubles, and for intermediary transactions 3,400,000 roubles.

On 1 January 1917 the membership of co-operative credit and savings societies was 10,478,000. Up to this date the turnover of the credit societies was 601,400,000 roubles, including 16,300,000 roubles in occupied districts. That of the savings associations was 383,300,000 roubles, including 130,500,000 roubles in occupied districts ; that of rural clubs 167,700,000 roubles ; that of 70 unions 75,200,000 roubles. The total turnover of co-operative credit organizations thus reached 1,058,900,000 roubles.

Deposits in credit societies amounted in 1914 to 200,000,000 roubles, in 1916 to 419,600,000 roubles. Savings associations had in 1914 deposits amounting to 209,100,000 roubles ; to 209,500,000 roubles in 1915 ; and to 262,700,000 roubles in 1916.

A general decline is noticeable in loans. Up to 1 January 1915 the co-operative credit societies lent 311,900,000 roubles ; up to 1 January 1916 312,000,000 roubles ; and up to 1 January 1917 only 295,100,000 roubles although the number of societies had increased. The savings associations

lent 268,100,000 roubles up to 1 January 1915 ; 256,800,000 roubles up to 1 January 1916 ; and 238,700,000 roubles up to 1 January 1917. At the end of 1916 overdue advances of the credit co-operative societies were equal to 13.3 per cent. of their remaining liabilities, as compared with 12.4 per cent in the previous years.

From 67,500,000 roubles in 1915 the intermediary operations of the co-operative credit societies increased to 200,200,000 roubles in 1916. Those of the savings associations increased from 24,200,000 roubles to 67,700,000 roubles. These operations of the co-operative credit societies amounted altogether to 91,700,000 roubles in 1915 and to 267,900,000 roubles in 1916.

Part II: Insurance and Thrift

SWITZERLAND.

INSURANCE AGAINST HAIL IN 1916

OFFICIAL SOURCE:

RAPPORT DU BUREAU SUISSE DES ASSURANCES SUR LES ENTREPRISES PRIVÉES EN MATIÈRE D'ASSURANCE EN SUISSE EN 1916 (*Report of the Swiss Office of Insurance of Private Enterprises in Switzerland to Insurance in Switzerland in 1916*) Berne, 1918

As in previous years, insurance against hail was practised in Swiss territory in 1916 only by two mutual societies: the *Société suisse d'assurance contre la grêle* at Zurich and the *Paragrêle* at Neuchâtel. The former is active on all Swiss territory and insures any crop against the risk of hail. The *Paragrêle*, on the other hand, is active only in the canton of Neuchâtel and insures only vineyards in this canton.

The year 1916 can, like 1915, be classified with years in which atmospheric condensations were particularly important as regards both the frequency and the abundance of the falls of hail. Thirty-nine days characterized by important storms were counted. The falls of hail were distributed over 911 communes and 355 districts. These figures do not include small local storms which were let loose upon one or two communes at a time. The following are the dates of the most violent falls of hail and the numbers of the communes they affected:

24 May	57 communes
25 May	46 "
9 June	71 "
23 June	44 "
25 June	69 "
4 July	101 "
10 July	93 "

The *Société d'assurance contre la grêle* had in 1915 raised from 10 per cent. to 0 per cent. the rebatement on the premiums to be paid by in-

sured persons who had not given notice of any losses by hail in the last three years. A small diminution, of 5,991 francs, in the amount of the premiums received was the result. In 1916, on the other hand, this company could record a new and very important increase in the premiums it received, for they reached 263,444 francs. In the same way the number of policies subscribed increased by 3,089 as compared with 1,980 in 1915, and the insured sums increased by 16,973,060 francs as against 9,605,950 francs in 1915. The amount of the damages paid, which had increased very much in 1915, diminished only slightly in 1916. Thanks to the income from invested sums the company could avoid a deficit, as it could not in previous years. It has therefore been possible to add a credit balance of 195,951 francs to the reserve provided by the by-laws.

We give below a comparative statement containing some interesting figures referring to 1915 and 1916.

	1915	1916
1. Number of policies .	68,877	71,966
2. Insured capital . . .	90,471,120 francs	107,444,180 francs
3. Premiums received .	1,298,096 »	1,561,540 »
4. Damages paid. . . .	1,392,482 »	1,339,404 »
5. Reserve fund	4,490,822 »	4,686,774 »

In the last five years the *Société suisse d'assurance contre la grêle* has had to record :

1912	1913	1914	1915	1916	
44	60	49	59	46	days of hail.
5,816	7,715	5,293	6,816	8,886	declarations of losses.

The following are the percentages of insured sums formed by damages paid :

1912	1913	1914	1915	1916	1880 to 1916
0.8 %	1.1 %	0.6 %	1.5 %	1.3 %	1.3 %

In comparison with 1915 there was a slight improvement. This is true also of costs of administration, as is shown by the following figures which are those of the percentages of premiums received formed by these costs :

1912	1913	1914	1915	1916	1880 to 1916
14.6 %	17.3 %	14.8 %	16.1 %	15.7 %	16.1 %

The two following tables summarize the results obtained by this company from 1880, the year of its foundation, until 1916 :

Results obtained by the "Société Suisse d'assurance contre la grêle" since its foundation.

1) Profit and Loss Account from 1880 to 1916.

Years	Receipts			Expenditure		Profits	Losses
	Premiums	Net supplementary premiums	Other receipts, Interest, etc.	Damages	Costs of administration and taxes		
	frances	frances	frances	frances	frances	frances	frances
- 1885-1886	1,274,739.40	490,712.80	61,162.14	1,408,799.33	390,944.93	175,564.39	148,694.26
1890	203,273.40	—	3,892.30	209,165.90	40,676.87	38,981.73	—
1891	262,128.30	—	3,515.61	285,643.91	203,103.60	31,683.51	—
1892	347,322.90	—	5,193.31	332,316.21	172,704.33	56,217.72	—
1893	456,600.40	—	10,440.04	467,140.44	173,729.85	123,593.96	—
1894	567,660.65	—	14,232.31	581,893.16	310,326.90	69,182.86	—
1895	582,647.70	—	20,672.16	603,320.16	451,237.10	71,778.47	—
1896	716,068	—	24,938.61	740,996.61	628,278.60	76,245.47	—
1897	703,220.10	—	23,649.36	726,869.46	595,963.20	24,801.30	—
1898	846,937.50	—	31,044.68	877,982.18	455,802.60	307,132.53	—
1899	723,632	—	39,072.20	762,704.20	405,520.14	546,123.96	—
1900	762,766.30	—	54,314.67	817,080.97	480,703.80	127,382.60	—
1901	704,598.60	—	67,347.86	771,946.46	430,034.21	66,589.83	—
1902	673,014.90	—	64,236.25	737,251.15	389,011.30	115,464.08	—
1903	808,501.80	—	67,026.31	875,528.11	456,487.70	127,844.30	—
1904	844,824.80	—	78,809.28	923,634.08	500,312.20	137,744.43	—
1905	879,952.20	—	96,388.03	976,340.23	584,536.60	135,961.02	—
1906	930,434.40	—	104,314.19	1,034,748.59	600,041.57	161,899	—
1907	879,739.90	—	112,506.37	991,736.27	1,001,743.20	—	—
1908	1,036,386.10	—	113,769.04	1,150,155.14	1,001,743.20	—	—
1909	981,490.80	—	120,003.07	1,101,493.87	903,985.20	68,944.27	—
1910	1,060,093	—	149,114.40	1,209,207.40	1,104,376.80	63,897.05	—
1911	1,139,311.80	—	140,394.42	1,279,706.22	1,104,376.80	86,306.01	—
1912	1,335,785.60	—	133,119.25	1,468,904.79	1,419,532.10	941,571.72	—
1913	1,049,223.70	—	156,110.25	1,205,333.95	690,840.80	638,989.05	—
1914	1,304,086.40	—	171,841.02	1,475,927.42	791,684.70	247,993.46	—
1915	1,294,093.50	—	188,739.94	1,482,833.44	507,492	775,634.31	—
1916	1,561,539.90	—	218,295.97	1,779,835.87	1,392,481.90	116,921.57	—
Total	23,951,238.14	490,712.80	2,270,333.28	26,712,310.22	17,992,647.03	5,663,189.19	896,415.69
	24,441,970.94			that is		4,776,772.50	
				73.6 %		16.1 %	
				of premiums received		that is 19.5 % of premiums received	

Results obtained by the "Société d'assurance contre la grêle" since its foundation.

2) Relation of Receipts, and Expenditure to Insured sum

Years	Number of policies	Sums insured	Receipts and expenditure per 100 francs of insured sum					Profits	Losses	
			Receipts			Expenditure				
			Premiums	Supplemen- tary premiums	Various	Total	Damages	Costs of administrat. and taxes		fr.	fr.
1888-1889.	68,623	81,904,741	1.56	0.60	0.07	2.23	1.72	0.48	0.21	0.18
1890	10,284	11,461,190	1.79	—	0.03	1.82	1.13	0.35	0.34	—
1891	16,985	16,377,070	1.67	—	0.02	1.69	1.20	0.31	0.18	—
1892	22,220	20,479,340	1.69	—	0.03	1.72	0.85	0.27	0.60	—
1893	26,073	23,766,356	1.92	—	0.04	1.96	0.73	0.27	0.96	—
1894	31,140	29,280,950	1.94	—	0.03	1.99	1.74	0.24	0.00	—
1895	33,681	29,931,790	1.99	—	0.07	2.06	1.54	0.30	0.22	—
1896	37,404	33,725,790	2.12	—	0.08	2.20	1.86	0.33	0.01	—
1897	36,522	33,123,910	2.12	—	0.07	2.19	1.80	0.30	0.09	—
1898	44,597	38,767,300	2.18	—	0.08	2.26	1.17	0.29	0.60	—
1899	44,378	36,432,820	1.98	—	0.09	2.07	0.29	0.29	1.49	—
1900	43,397	37,841,500	2.01	—	0.14	2.15	1.32	0.30	0.33	—
1901	43,273	37,249,900	1.88	—	0.18	2.06	1.56	0.32	0.18	—
1902	44,499	37,762,160	1.79	—	0.17	1.96	1.72	0.31	—	0.07
1903	47,810	43,295,820	1.87	—	0.15	2.02	0.90	0.26	0.86	—
1904	50,444	46,765,840	1.80	—	0.17	1.97	1.19	0.28	0.30	—
1905	52,913	49,637,870	1.77	—	0.20	1.97	1.98	0.27	0.32	—
1906	55,454	53,795,920	1.73	—	0.19	1.92	0.37	0.23	1.12	—
1907	55,560	55,464,780	1.59	—	0.20	1.79	1.81	6.28	—	0.30
1908	59,839	64,307,180	1.61	—	0.18	1.79	1.41	0.28	0.11	—
1909	58,453	62,305,650	1.54	—	0.19	1.74	0.40	0.24	1.00	—
1910	60,436	67,420,780	1.57	—	0.22	1.79	1.64	0.28	—	0.13
1911	61,031	71,322,080	1.59	—	0.20	1.79	1.90	0.28	—	0.48
1912	65,361	79,337,960	1.60	—	0.17	1.86	0.81	0.25	0.80	—
1913	63,907	77,725,120	1.48	—	0.22	1.70	1.10	0.25	0.35	—
1914	66,897	80,865,170	1.61	—	0.21	1.82	0.65	0.24	0.96	—
1915	68,872	90,471,120	1.43	—	0.21	1.64	1.54	0.23	—	0.13
1916	71,966	107,444,160	1.45	—	0.20	1.65	1.25	0.23	0.18	—
Total . . .	1,341,274	1,411,881,681	1.70	0.03	0.16	1.89	1.27	0.28	0.40	0.06

The company known as *Le Paragrèle* kept almost unvaried in 1916 the number of its insured, its insured sums and the amount of its premiums. The figure representing the losses it paid in 1915 was very small, but the damages it awarded in 1916 were noticeably increased. The increase in the income from invested sums nevertheless allowed the payment of a sum of 31,750 francs into the reserve fund as against 33,000 francs in 1915. The reserve fund reached, at the end of 1916, 140,500 francs as against 108,750 francs in 1915.

The following is a comparison between the principal figures referring to 1915 and 1916.

	1915 —	1916 —
1. Number of policies	528	527
2. Capital insured	565,991 francs	559,943 francs
3. Premiums received	34,007	33,649 "
4. Damages paid.	316	2,955 "
5. Reserve fund	108,750	140,500 "

Le Paragrèle records only three days of hail in 1916, the 10th and 11th of June and the 23rd of July, and the damages which vineyards suffered on them were unimportant.

The damages paid by *Le Paragrèle* in the last five years formed the following percentages of insured capital :

in 1912	in 1913	in 1914	in 1915	in 1916
0.6 %	20.1 %	4.2 %	0.1 %	0.5 %

The following are the percentages of the premiums received which were formed by costs of management :

1912	1913	1914	1915	1916
12.9 %	11.1 %	13.5 %	11.8 %	12.4 %

We should recall finally that the Confederation and cantons may subsidize insurance against hail. The subsidies are paid in accordance with the rules of the cantonal laws and the federal law of 22 December 1893 as to the improvement of agriculture by the Confederation. The cantons granting subsidies number twenty-one. Only those of Glaris, Tessin and the Grisons pay none and thus prevent their farmers from bene-

fitting by the federal subsidies for insurance against hail. All the other cantons make themselves responsible for a proportion of premiums and costs of policies varying from 15 to 40 per cent. In their case the Confederation until 1914 made a grant equal to 50 per cent. of the subsidies they paid. But on 11 December 1914 the Federal Council published a decree according to which the federal grant may not for the future exceed 50 per cent. of the costs of the policy, 20 per cent. of insurance premiums for vineyards and 12.50 per cent. of insurance premiums for other crops.

The following table shows the amount of the grants made by the Confederation and the cantons in favour of insurance against hail in 1916. While previously federal and cantonal grants reached the same sum, it is noticeable that the former now hardly exceed nine tenths of the latter.

SWITZERLAND - INSURANCE AND THRIFT

Grants to Insurance against Hail in 1916.

Cantons	Policies	Insured sums	Premiums	Cantonal expenditure (including federal grants)			Federal grants
				Costs of policies	Grants for premiums	Total	
		frances	frances	frances	frances	frances	frances
1. Zurich,	5,545	7,180,190—	129,313.60	5,768.90	16,189.13	21,958.03	20,849.02
2. Berne	16,850	29,638,930—	358,911.10	11,418.75	37,294.32	51,743.07	51,743.07
3. Lucerne,	6,343	16,599,330—	257,993—	5,321.70	25,199.30	30,521—	30,521—
4. Schwyz,	830	1,566,640—	27,008.20	147.90	2,700.82	2,848.72	2,848.72
5. Upper Unterwald	566	497,390—	11,644.20	474.15	1,164.42	1,638.57	1,638.57
6. Lower Unterwald	526	498,840—	9,971.70	—	997.17	997.17	997.17
7. Zug	1,107	2,389,310—	42,294.80	1,289.40	7,401.59	8,690.99	6,244.15
8. Fribourg	2,242	4,741,120—	43,701.70	1,937.05	4,370.17	6,327.22	6,327.22
9. Soleure	5,613	5,846,830—	62,606.10	4,898.70	6,317.09	11,215.79	11,187.55
10. Basle-Town	41	201,370—	2,245.70	44.30	573.59	617.89	352.59
11. Basle-Country	3,182	2,562,850—	31,766.50	2,604.30	5,478.70	8,083—	7,221.34
12. Schaffhouse	2,334	2,650,630—	38,062.40	1,951.20	4,757.79	6,708.99	6,708.98
13. Appenzell Rh.-Int.	841	1,079,800—	16,080.80	727.65	2,010.09	2,737.74	2,737.74
14. Appenzell Rh.-Ext.	138	258,740—	2,672.30	69—	206.42	269.42	269.42
15. St. Gall,	3,914	4,841,820—	55,737.50	5,287.60	5,876.97	11,164.57	9,207.56
16. Argovie	12,612	9,175,940—	115,458.60	10,245.30	10,414.86	20,660.16	20,660.15
17. Thurgovie	3,787	3,878,560—	44,069—	3,106.05	6,366.50	9,472.55	9,472.55
18. Vaud	4,388	9,961,630—	177,511.70	8,166.20	30,834.66	38,940.86	34,552.86
19. Valais,	74	65,680—	2,752.90	125.80	412.94	538.74	479.53
20. Neuchâtel	1,368	1,860,392.50	71,375.45	370.20	17,843.93	18,214.13	14,931.48
21. Geneva	803	2,508,910—	101,918.90	1,061.20	30,485.70	31,546.90	20,037.30
Total	73,104	107,984,052.50	1,594,296.15	68,005.35	216,899.16	284,895.51	258,687.97
"	68,829	91,014,971—	1,331,880.27	65,233.45	183,045.42	248,278.87	225,395.56
"	66,661	81,356,404—	1,324,499.82	69,017.25	192,441.25	261,458.50	261,458.47

Part III: Credit

ITALY

THE INSTITUTIONS OF LAND CREDIT IN 1917.

SOURCES :

- ANNALI DEL CREDITO E DELLA PREVIDENZA : Anno 1910, N. 65. CREDITO FONDIARIO, Leggi, decreti e regolamenti. Ministero di Agricoltura, Industria e Commercio (*Annals of Credit and Thrift: Year 1910, No 85 Land Credit. Laws, decrees and regulations. Ministry of Agriculture, Industry and Trade*). Rome, Bertero, 1910.
- ISTITUTO ITALIANO DI CREDITO FONDIARIO : RELAZIONE DEL CONSIGLIO DI AMMINISTRAZIONE E DEI SINDACI PER L'ANNO 1917 (*Italian Institute of Land Credit, Report of Administrative Council and Accountants for 1917*). Ordinary general meeting of shareholders 28 February 1918. Rome, Tip. Bodoni, 1918
- CREDITO FONDIARIO DELLA CASSA DI RISPARMIO DELLE PROVINCE LOMBARDE IN MILANO BILANCIO CONSUNTIVO DELL'ANNO 1917 (*Land Credit of the Savings Bank of the Lombard Provinces at Milan. Complete Balance Sheet for 1917*) Milan, Tip. Reggiani, 1918
- ISTITUTO DELLE OPERE PIE DI SAN PAOLO IN TORINO CREDITO FONDIARIO ESERCIZIO 1917 (*Institute of the Charities of St Paul in Turin Land Credit Year 1917*. Turin, Tip F Cella 1918
- CREDITO FONDIARIO DELLA CASSA DI RISPARMIO IN BOLOGNA ATTI DELL'ASSEMBLEA GENERALE DEGLI AZIONISTI TENUTASI IL 14 APRILE 1918 E RESOCONTI DEL 1917 (*Land credit of the Saving-Bank at Bologna. Resolutions of the General Meeting of Shareholders held on 14 April 1918 and Reports for 1917*) Bologna, Tip. Melani, 1918.
- REPORTS FOR 1917 OF THE OTHER INSTITUTIONS OF LAND CREDIT ACTIVE IN ITALY

In our issues for last September and October we examined the work of the two greater institutions of agricultural credit which are active in Italy, the Savings-Bank of the Bank of Naples and the agricultural credit branch of the Bank of Sicily. These institutions distributed altogether in 1917 in the southern provinces of Italy and in the islands 38,239,312 liras, derived partly from their own funds, partly from the capital of the provincial funds of agricultural credit they managed and partly from funds directly advanced by the State. We will now deal with the institutions of land credit first noticing their organization and then studying more particularly the activity they deployed in 1917.

§ 1. THE ORGANIZATION OF LAND CREDIT.

Land credit is afforded in Italy by the following State-regulated institutions: the *Istituto Italiano di Credito Fondiario* (Rome), the *Istituto delle Opere Pie di San Paolo* in Turin, the *Monte dei Paschi* of Siena, the *Credito Fondiario Sardo* in Cagliari, and the Savings-Banks of Milan, Bologna and Verona. Other bodies can be authorized to afford land credit by royal decree, in particular the mutual associations of landowners holding real estate worth at least 5,000,000 liras, societies and institutions having a paid-up capital of 10,000,000 liras, and also, in regions in which no local body affords land credit, societies having a capital less than 10,000,000 liras but not less than 2,000,000 liras.

The land credit departments of the Savings-Banks of Milan and Bologna, the *Istituto delle Opere Pie di S. Paolo*, the *Monte dei Paschi* and the *Istituto Italiano di Credito Fondiario* can undertake business in all the provinces of the kingdom. The Savings-Bank of Verona is authorized to afford agricultural credit in the provinces of Venetia and Mantua, the *Credito Fondiario Sardo* in Sardinia.

The business which these institutions can accomplish is regulated by minute legal rules and is various. Its most important part is the granting of loans secured by mortgages on real estate up to half the value of such real estate. Such loans are repayable in annual instalments spread over at least ten and at most fifty years. An annual instalment comprises the quota of repayment, interest, the tax on income, the payment for rights of commission and expenses of administration, which must not exceed 45 centesimi for every hundred liras of capital lent, and finally the quota for repayment of the Treasury tax which the various institutions pay directly on behalf of their creditors. A debtor can however free himself in advance of all or part of his debt, making the due payments to the lending institution and the Treasury.

The institutions of credit also enjoy an option of acquiring, by cession or substitution and on the same terms as loans, mortgage or privileged credit, redeemable by amortization.

They procure the necessary means for accomplishing business of these two kinds by issuing land paper bearing interest at different rates — $3\frac{1}{2}$ %, $3\frac{3}{4}$ %, 4%, $4\frac{1}{2}$ % and 5 per cent. — and thus avoiding the great oscillations of the stock exchange. Loans are made in paper and bear interest at the same rate as the paper issued for them. Such paper has a nominal value of 500 liras and can be made payable to bearer or holder. The loans are repaid gradually at par, as much paper being weekly drawn by lot as corresponds to the respective instalments owed by the borrowers of the preceding half-year. All the land paper issued is secured by all the mortgages held, and this safeguards the holders of the paper.

Landowners who are not in immediate need of capital but only of available funds can, rather than have recourse to the loans regularly made in

paper, have opened for themselves a current account guaranteed by a mortgage, and thus receive advances in cash at a rate of interest which varies and is determined by the institutions.

Having made these preliminary remarks, we will pass to an examination of the work accomplished by these institutions in Italy in 1917, basing ourselves on their annual reports.

§ 2. THE ITALIAN INSTITUTE OF LAND CREDIT.

The administrative council of this important institution, founded in Rome in 1891, notes in its report on the results obtained last year that the abundance of money, the high price of provisions, and the uncertainty of contracts entered into at the present juncture were the principal reasons why there were, on the one hand, less recourse to land credit, and on the other hand a large demand for paper and many total or partial repayments of loans.

Thus the applications to the institute for loans numbered 168 and were for 16,831,500 liras, 92 loans for 9,239,000 liras being secured by rural land and 76 for 7,592,500 liras by urban land, whereas in 1916 applications for loans numbered 183 and were for 21,254,500 liras.

Definite contracts for loans in 1917 numbered 77 and were for 6,505,500 liras, having numbered 93 and having been for 7,374,000 liras in 1916. They were all payable in cash at the request of the borrowers. They would have reached a far higher figure if they had been able to keep pace with the abundant wealth of paper.

The loans are guaranteed by securities worth 13,660,000 liras, and are distributed as follows among kinds of securities :

	Number	Amount Liras	Value of security Liras
Loans on rural land	55	4,063,000	8,664,950
" urban "	22	2,442,500	4,995,050
Total	77	6,505,500	13,660,000

By districts they are distributed as follows :

	Number	Amount Liras
North Italy	2	372,000
Central Italy	17	1,502,500
South Italy (including the islands) . .	58	4,631,000
Total	77	6,505,500

Of the amount of the loans stipulated in 1917 the sums appropriated to the extinction of more burdensome earlier mortgages and to obtaining emancipation from dues amounted to more than 3,500,000 liras, namely 3,475,387 for the extinction of mortgages and 89,796 liras for emancipation from dues, or 3,565,183 liras altogether.

The rates of interest payable on the mortgages extinguished by the loans were as follows: up to 5 per cent. 2,444,583 liras; from 5 $\frac{1}{2}$ to 6 per cent. 536,404 liras; from 6 $\frac{1}{2}$ to 7 per cent. 480,900 liras; above 7 per cent. 13,500 liras.

Of the total sum of the loans which the Institute granted from 1891 to 1917, that is 290,475,550 liras, the sum gradually repaid by the borrowers was 104,039,689 liras, namely 45,495,185 liras by half-yearly instalments, and 58,544,504 liras by advance repayments and by the conversion of loans bearing a higher to loans bearing a lower rate of interest. Deducting this sum of 104,039,689 liras from the total sum of the loans hitherto made by the Institute, we find that on 31 December 1917 its outstanding mortgage loans numbered 2,694 and were for 186,435,861 liras. They were secured by property of the value of 460,738,574 liras.

The sums to be repaid in 1917 as half-yearly instalments amounted to 15,592,195 liras altogether. Of this sum the total amount of 13,733,971 liras was recovered; and on 1 January 1918 the outstanding amount was therefore 1,858,244 liras.

It should be noted that of recent years, that is since 1915, the Institute, in consequence of the war and of such public calamities as the earthquake in Marsica and the plague of fieldmice in Apulia, has resolved to come to the aid of some classes of its creditors by proroguing the payment of a certain quantity of half-yearly instalments, which have been united to the instalments not yet due. The total sum of the payments thus suspended in 1917 was 727,237 liras.

The demand for paper was very lively in 1917. Paper bearing interest at the three rates of 4 $\frac{1}{2}$, 4 and 3 $\frac{1}{2}$ per cent. was sold, in 37,927 notes and for the nominal value of 18,963,500 liras, the number surpassing that of the previous year, by 13,057 and the value by 6,528,500 liras.

On 1 January 1918 there were altogether in circulation 365,628 notes of these three kinds having the total nominal value of 182,814,000 liras, which is to say that the number of notes had increased by 24,684 and their nominal value by 12,342,000 liras as compared with those circulating on 31 December 1916.

As regards the balance-sheet of the year under review: the profit and loss account shows an income amounting to 10,132,026.33 liras, whence must be deducted a) for interest due on paper in circulation 6,825,894.22 liras, b) for other dues and expenses 1,110,646.53 liras, that is altogether 7,936,540.75 liras, which gives a net profit of 2,195,485.58 liras. Thence must be deducted 5 per cent. for the reserve as by the by-laws, or 109,774.28 liras, and there remain 2,085,711.30 liras, which, when added to the 18,612.18 liras carried over as a credit balance from 1916, give a total available credit balance of 2,104,323.48. This sum was, on the proposal

of the administrative council, distributed as follows: a) towards repayment of the purchase-price of the offices of the Institute 10,000 liras; b) to the available reserve 75,000 liras; c) to the shareholders at the rate of 25 liras a share 2,000,000 liras; d) to the new account 19,323.48 liras.

The capital and reserve fund of the Institute stood as follows on 1 January 1918: capital in shares — 40,000,000 liras; reserve as by by-laws — 2,630,992.53 liras; available reserve — 1,391,373.85 liras; reserve to provide for variations in value of securities — 135,496.34 liras; deferred reserve (sums to be collected) — 4,268,428.91 liras; credit balance for 1917 — 19,323.48 liras; total — 48,445,615.11 liras.

§ 3. THE LAND CREDIT OF THE SAVINGS-BANKS OF MILAN, BOLOGNA AND VERONA.

The necessity of preventing an excessive holding-up of deposits, and therefore of keeping the business of mortgage loans within determinad limits, in view of the slowness with which they are recovered, necessarily made the assistance of the capital of the *Cassa di Risparmio delle Province Lombarde* inadequate to meet the great need of landed property, for which it is essential that capital should be conceded with liberty to repay it gradually, the repayment quotas being small and proportionate to the annual revenue of lands and there being no fear of an eventual and sudden demand for repayment.

For these reasons this savings-banks did not hesitate to undertake in 1867, basing itself on the law of 14 June 1866, the affording of land credit; and in order to assist this enterprise and to give a stronger guarantee to the new institution it engaged a part of its own capital, such part being at first fixed at 4,000,000 liras but afterwards raised to 5,000,000 liras (1).

This new institution rendered many and signal services to property. Its management, which was separate and distinct from that of the savings-bank, continued to develop, so that the institution became the most important of those which afford credit of this kind in Italy. It is regulated by the consolidated law on land credit, which was approved by the royal decree, No. 646, of 16 July 1905, and by the subsequent law of 22 December of the same year.

Land paper was at first issued at 5 per cent.; but in order that the paper might be easily and usefully placed and might fulfil its aim of procuring capital for landownership it was necessary that its rate should be related to the current market price of money. The administration did not fail to take the steps this rendered necessary, gradually modifying the rate for new issues whenever it did not accord with the conditions of the market. In 1866 loans were made with 4 per cent. paper and in 1904

(1) See GIUSSANTI (Angelo): *Il Credito fondiario della Cassa di risparmio di Milano*, in *Bollettino dell'Agricoltura*, Milan, No. 8, 1918.

with 3 $\frac{1}{2}$ per cent. paper. In April 1915 the issue of 4 per cent. paper was resumed, but the issue of 3 $\frac{1}{2}$ per cent. paper was still kept open, the borrower being thus left free to choose the paper he thought most convenient (1). This system is still in force, being followed, as is known, by other institutions in Italy and abroad. The variety of its paper gives the issuing Institute in normal times the elasticity necessary to a continuous representation on the market of the average current interest, and safeguards the borrower from the loss to which paper issued at too low a rate would expose him, reserving for him the option of converting his debt at any time into other paper at a more convenient rate if the conditions of the market happen to change.

The business of 1917 of the *Credito fondiario della Cassa di risparmio delle provincie lombarde* was characterized by a remarkable number of voluntary repayments made on account or on balance of current loans. These amounted to little less than 8,000,000 liras, paid almost entirely in paper, mostly of the 3 $\frac{1}{2}$ per cent. series. These repayments had the effect of bringing the total existing loans (4,190), represented by paper of the 5, 4 and 3 $\frac{1}{2}$ per cent. series, down to 206,324,329 liras, the number of loans having diminished by 62 since the previous year and their amount by 2,201,558 liras.

In 1917, 130 new loans for 9,822,500 liras were made, as against 197 for 12,947,500 liras in 1916. This decrease is partly due to the condition of the agricultural industry which could, owing to the fairly remunerative receipts for the produce of the soil, supply its own needs without having recourse to mortgage credit. Of these loans 21 for 2,534,000 liras were secured by rural land, 107 for 7,166,500 liras by urban land, and 2 for 122,000 liras by mixed properties. Seventy-nine out of 130 loans were for 40 years, and about half (61) were of sums between 5,500 and 30,000 liras.

The year's profits are usually paid as regards one half into the savings-bank, and as regards the other half, after the quota for the pension fund and grants to employees has been deducted, invested in State securities which go to increase the ordinary reserve fund of the *Credito fondiario*.

The subsidiary guarantee of the paper in circulation constituted by the two reserve funds — ordinary and special — amounts altogether to 6,038,802 liras, to which sum must be added 5,000,000 liras which the savings bank has assigned out of its own capital to guarantee the business of the *Credito fondiario*.

Passing to the *Credito fondiario della Cassa di Risparmio di Bologna* we find that it made 38 loans in 1917 for 4,014,000 liras. Of these loans 22 for 1,568,000 liras were secured by urban land, 12 for 2,042,500 liras by rural land, and 4 for 403,500 liras by mixed urban and rural land. Almost all these loans, namely 32 for 3,680,000 liras, were made in the province of Bologna.

(1) See RODOLICO (Gaspare): *Scelta dei mutui fondiari a vari saggi d'interesse*, in *Giornale degli Economisti*, Rome, No. 4, October 1918.

In spite of the difficulties of the time the paper of this institution was much in demand at good prices, partly on account of the need for advance extinctions of mortgages which was a consequence of the active movement of sales of rural property.

From the time this Savings-Banks was founded in 1868 until 1917 it made altogether 3489 loans for a sum of 137,935,500 liras, the average amount of a loan being 39,534 liras.

The *Credito fondiario* of the Savings-Banks of Verona made in 1917 only four loans in paper for the total sum of 284,000 liras.

§ 4. THE INSTITUTE OF THE CHARITIES OF ST. PAUL, AT TURIN, THE "MONTE DEI PASCHI" AT SIENA, AND THE SARDINIAN LAND CREDIT AT CAGLIARI.

The year 1917 was marked for the Institute of the Charities of St. Paul at Turin, which began its activity in 1563, by an arrest of the rising progress of loans on land which had been continuous from 1907 to 31 December 1916. On 31 December 1907 these loans amounted to 42,936,823.99 liras; on 31 December 1916 to 91,629,295.79 liras; and at the end of 1917 to 90,351,583.89 liras. Thus after ten years of increase there has been a slight decrease, a phenomenon which has not occurred only in this institution but is even more accentuated elsewhere, and is due to the diminished frequency of new loans and the increase of advance repayments, as we will see when we examine the business of 1917 more particularly.

1) *Loans Repayable by Instalments*: a) *Applications for loans*. — The difficulties due to the war, together with the high price of provisions and the abundance of money, explain the decrease in applications which appears from the following figures:

Year	Number	Amount liras
1914	454	24,914,500
1915	277	21,226,500
1916	199	18,557,500
1917	136	10,346,000

b) *Loans granted*. — A decrease in definite contracts for loans naturally corresponds to the decrease in applications for them, as appears from the following figures:

Year	Number	Amount liras
1914	204	7,006,500
1915	160	7,628,000
1916	118	5,752,500
1917	73	3,550,000

Contracts making loans and application for them concerned especially property in the provinces of Turin, Genoa, Rome, Milan and Naples.

The business of 1917 was distributed as follows by kinds of land mortgaged :

	Number	Amount — liras
Urban land	65	2,975,000
Rural land	4	480,000
Mixed urban and rural land .	4	95,000
Total . . .	73	3,550,000

All the business concluded consisted of new contracts for loans, no conversions or transformations of loans of the previous year being effected.

A large part (2,101,355 liras) of the capital lent was intended for the extinction of earlier debts either to this institution itself or to others.

Fifty-nine out of 73 contracts for loans drawn up in 1917 were for sums varying from 5,000 to 100,000 liras, and 55 (3,205,000 liras) were for a term of 50 years.

The realization of the 3 $\frac{1}{2}$ per cent. net paper, issued for these loans, was affected with steadily increasing facility, the demand for these securities being greater than the supply of them. The price at which they were currently quoted rose from 443.50 liras to 480 liras, which price has become almost fixed, and is the best obtained, equally so if it be compared with the current price of paper at the usual rates issued by other institutions of this kind.

c) *Repayment of capital lent.* — Repayments have somewhat increased, thanks to the abundance of money, as appears from the following comparative figures :

Year	Instalments due		Advance repayments		Total	
	No.	Amount	No.	Amount	No.	Amount
1914.	7	1,807,940.34	70	2,294,589.16	77	4,102,529.50
1915:	10	1,806,440.14	75	2,822,411.25	85	4,628,851.39
1916.	12	1,813,230.18	90	2,494,140.10	102	4,307,370.28
1917.	16	1,823,578.88	119	3,004,133.02	135	4,827,711.90

d) *Outstanding loans on 31 December 1917.* — On 1 January 1917 outstanding loans numbered 2,410 and amounted to 91,629,295.79 liras ; and on 31 December 1917 they numbered 2,348 and amounted to 90,351,583.89 liras : thus they had lessened by 62 and by 1,277,711.90 liras.

Their amount on 31 December 1917 was distributed as follows :

	Number	Amount Liras
On urban land	1,723	68,391,281.50
On rural land	523	17,096,187.77
On mixed urban and rural land	102	4,864,114.62
Total . . .	2,348	90,351,583.89

2) *Recovery of half-yearly instalments.* — This proceeded in a satisfactory way as appears from the following data :

Year	Initial Arrears	Half-year's instalments due on 1 January and 1 July	Total	Overdue instalments received	Final arrears	Percentage of column 3 formed by column 5
—	1	2	3	4	5	6.
1914	97,931 —	5,448,102 —	5,546,033 —	5,403,733.02	142,399.98	2,565
1915	142,299 98	5,617,234 42	5,759,534 40	5,529,174.33	230,360.07	3,999
1916	230,360 07	5,752,463 93	5,982,824 —	5,679,154.44	303,669.56	5,076
1917	303,669 56	5,865,773 48	6,169,443.04	5,761,189.68	408,253.36	6,617

Arrears certainly increased, but not excessively in view of the circumstances of the time.

3) *Land paper.* — The circulation of this paper amounted on 31 December 1917 to 90,352,000 liras, as against 91,630,000 liras on 31 December 1916; and thus there was a decrease of 1,278,000 liras corresponding to that in the mass of the loans on land. The paper in circulation on 31 December 1917 could be distributed as follows :

	At 3 ¼ %	At 3 ½ %	Total
Deposited paper payable to holder	Liras 3,703,000	3,614,000	7,317,000
Deposited paper payable to bearer	» 675,500	3,909,000	4,584,500
Securities in free circulation	» 11,075,500	67,375,000	78,540,500
Liras	15,454,000	74,898,000	90,352,000

Paper at 3 $\frac{3}{4}$ per cent. was quoted during the year from 497 to 502 liras; paper at 3 $\frac{1}{2}$ per cent. was, as we have already said, much sought after, particularly in December, at 480 liras.

The *Monte dei Paschi* of Siena, another ancient and powerful institution of credit, issued 35 mortgage loans in paper for 1,498,500 liras in 1917.

The activity in this year of the Sardinian *Credit Fondiario* was very much restricted. In 1916 it made five loans for 81,000 liras. The loans it granted in 1917 amounted only to 20,000 liras.

§ 5. THE DEVELOPMENT OF THE INSTITUTIONS OF LAND CREDIT FROM 1906 TO 1917.

To give an exact idea of the importance which institutions of land credit have assumed in Italy, we think it useful to reproduce the two following tables. The first shows for all these institutions the amount of their chief assets and liabilities from 1906 to 1916, and the second the principal business accomplished by each institution in 1916:

Number of the Institutions of Land Credit and Aggregate Amounts of their Chief Assets and Liabilities.

Year	No. of insti- tutions on 31 December	Mortgaged values on 31 December liras	Value of land paper in circulation on 31 December liras	Amount of mortgage loans	
				Made during year liras	Outstanding on 31 December liras
1906.	7	792,484,204	322,597,500	44,329,500	345,413,633
1907.	7	821,981,025	341,250,500	45,335,000	359,816,990
1908.	7	904,898,770	371,038,000	61,819,000	389,933,630
1909.	7	924,045,706	395,726,500	59,713,800	413,551,475
1910.	7	1,031,733,191	437,228,000	74,111,500	457,824,751
1911.	7	1,152,398,533	490,198,000	78,896,000	508,276,418
1912.	7	1,255,685,266	541,628,500	76,249,750	561,227,975
1913.	7	1,344,555,002	580,501,500	62,816,500	601,544,503
1914.	7	1,414,040,586	608,393,000	41,583,000	629,503,898
1915.	7	1,438,305,174	621,928,500	31,974,500	638,457,182
1916.	7	1,459,310,120	630,722,000	31,006,500	642,228,258

Amount of principal assets and liabilities of each institution in 1917.

Institutions —	Value of mortgaged property on 31 December liras	Value of land paper in circulation on 31 December liras	Amount of mortgage loans	
	—	—	made during year liras	outstanding on 31 December liras
Credito fondiario de'la Cassa di risparmio, Bologna .	82,516,469.74	53,140,000	3,115,500	52,543,338.91
Credito fondiario della Cassa di risparmio, Milan. .	421,127,000 —	210,563,500	12,047,500	208,525,557.89
Credito fondiario della Cassa di risparmio, Verona .	30,699,946 —	22,620,000	513,500	22,321,022.59
Credito fondiario saldo, Ca- gliari	5,060,300 —	2,745,000	81,000	2,710,156.72
Istituto italiano di credito fondiario, Rome . . .	457,718,900 —	170,472,000	7,371,000	186,558,640.28
Credito fondiario del Monte dei Paschi, Siena . . .	210,550,697.21	78,578,500	1,222,500	77,030,006.52
Credito fondiario dell'Isti- tuto delle opere pie di S. Paolo, Turin. . . .	254,636,768 —	92,603,000	5,752,500	91,629,295.79

We should recollect that these institutions do not limit their activity to affording credit, but that by enterprises of public usefulness and by participation in initiative of general interest, they give a concrete illustration of the manner in which in Italy land credit is progressing towards the further direct and indirect assistance of the safeguarding and development of property in real estate.

JAPAN.

AGRICULTURAL CREDIT IN KOREA.

OFFICIAL SOURCE :

ANNUAL REPORT ON REFORMS AND PROGRESS IN CHOSEN (KOREA) (1915-16) Seoul, July 1917.

The distribution of agricultural credit is a problem of capital importance in Korea where 80 per cent. of the inhabitants are occupied by agriculture. This distribution is undertaken by three different groups of institutions : a) the Agricultural and Industrial Banks (*Nôkô Ginkô*) ; b) the People's Bank Associations (*Chinô Kingû Kumiai*) ; and c) the Oriental Development Company (*Tôyô Takushoku Kabushiki Kaisha*).

§ 1. THE AGRICULTURAL AND INDUSTRIAL BANKS.

The Agricultural and Industrial Banks are limited liability stock companies. Their share capital may not be less than 10,000 yen and the normal value of a share is 20 yen. They are governed by regulations of 1906 and 1907 amended in 1911. The last regulation recognized that they were able to conduct ordinary banking business but insisted that they should gradually limit their activity to granting credit to industrial and agricultural enterprises. They are especially authorized to make long-term loans, and to discount bills and negotiable paper and warrants touching native products. In order to find the funds necessary to these operations the banks are authorized to borrow and to receive ordinary deposits, independently of the funds intended for long-term loans. For the same object they are authorized to enter into close relations with the banking department of the Oriental Development Company, already mentioned, acting to some extent as this company's agents. Finally the amount of issues of debentures which might at first reach five times the amount of the paid-up capital, has been reduced to the amount of the long-term loans repayable by annual instalments. Further each year debentures having an aggregate value equal to the sum recovered on these loans must be withdrawn from circulation. These banks number six and have a growing number of branches. Their capital stood as follows from 1908 to 1915.

Year	Main offices	Branches or detached offices	Authorized capital yen	Paid-up capital yen	Debentures issued yen	Reserve fund yen
1908	6	22	1,200,000	555,250	1,050,000	84,263
1909	6	26	1,200,000	555,250	1,050,000	114,839
1910	6	27	1,200,000	555,250	960,000	144,925
1911	6	35	1,200,000	848,575	1,870,000	185,338
1912	6	36	2,400,000	1,348,710	1,870,000	386,277
1913	6	36	2,600,000	1,467,945	2,990,000	479,339
1914	6	37	2,600,000	1,469,890	2,910,000	486,682
1915	6	37	2,600,000	1,469,890	2,319,500	487,031

It is seen that the effective capital which the Agricultural and Industrial Banks have in their paid-up capital and reserve funds did not cease to increase from 1908 to 1915. The cancellations of debentures imposed by the regulation of 1914 have caused the cancellation of securities amounting to 670,500 yen. The figures we have given do not convey a complete idea of the resources of which the Agricultural and Industrial Banks really dispose. For the government helps them in two ways, first by making them advances and secondly by taking a certain number of their shares. The following figures allow the importance of this double intervention to be understood :

Year	Advances by government yen	Value of shares taken by government yen
1908	1,214,680	329,960
1909	1,134,680	329,960
1910	1,134,680	329,960
1911	1,134,680	329,960
1912	1,479,980	329,960
1913	1,469,980	329,960
1914	1,459,980	329,960
1915	1,459,980	329,960

Thus government has taken no new shares since 1908, although the share capital of the Agricultural and Industrial Banks has more than doubled since that date, passing from 1,200,000 yen to 2,600,000 yen. On the other hand of government advances, which from 1,134,680 yen in 1911 passed to 1,479,980 yen in 1912, two repayments of 10,000 yen each have twice been made since 1912. These facts indicate a favourable situation, as does, still more eloquently, the amount of the deposits entrusted to these banks.

Year	Amount of deposits — yen
1908	752,286
1909	1,650,120
1910	3,205,389
1911	4,100,099
1912	4,469,654
1913	4,599,926
1914	4,718,821
1915	6,456,378

Proceeding to examine the business of the Agricultural and Industrial Banks we must not lose sight of the fact that, since the agricultural methods of the Korean people were somewhat primitive advances could not attain to any considerable amount in early years. Since the annexation, however, there has been a scientific effort to realize the value of the country's resources and the condition of affairs has been much changed. The demand for advances for works of irrigation, for the construction of various works and for agricultural improvements has much increased, as appears in the following table :

Year	Loans repayable by annual instalments		Loans repayable at fixed dates		Ordinary loans	Bills discounted	Balance over- drawn in current deposit for com- mercial purposes	Total
	Agric- ulture	Industry	Agriculture	Indus- try				
	yen	yen	yen	yen	yen	yen	yen	yen
1908	86,262	17,060	43,464	7,765	1,394,639	1,102,251	30,134	2,681,575
1909	124,754	309,475	68,401	31,745	1,648,720	1,898,592	35,258	4,116,949
1910	392,728	556,495	92,137	46,882	1,740,839	3,457,870	57,773	6,344,724
1911	865,927	400,527	149,206	207,379	2,031,801	4,803,182	51,435	8,509,457
1912	1,359,512	218,759	172,212	354,450	2,691,560	5,546,204	114,063	10,456,160
1913	1,073,396	888,025	221,714	578,836	3,165,704	5,303,517	352,430	11,583,622
1914	1,660,508	636,788	1,192,955	392,932	3,627,149	3,526,090	518,226	11,554,648
1915	1,650,676	468,909	1,029,541	345,557	4,316,233	3,350,259	301,605	11,462,780

During 1908 the agricultural loans, which aggregated 129,726 yen, much exceeded the industrial loans which reached only 24,825 yen. This proportion was inversed in the next year, when the industrial loans preponderated, amounting to 341,357 yen, as against agricultural loans for 193,155 yen ; and in 1910 this latter position was repeated, industrial loans amount-

ing to 603,377 yen as against agricultural loans for 484,865 yen. But from 1911 onwards agricultural loans again occupied a leading place, amounting to 1,015,134 yen while industrial loans amounted to 607,906 yen, and this position has not since been modified. In 1915 the total sum of agricultural loans — 2,680,217 yen — was more than three times as great as that of the industrial loans — 814,466 yen.

§ 2 THE PEOPLE'S BANKS.

The People's Bank Associations, which we now have to consider, aim principally at facilitating the circulation of money among small farmers by affording them a reasonable means of improving their farms. In practice they are not far removed from the Agricultural and Industrial Banks but they do business with far more restricted resources and are more immediately in touch with the lower classes of the agricultural population. They are co-operative associations having limited liability. The share capital is constituted by an advance of 10,000 yen granted by the government to each association. To this initial capital there have been added since 1914 shares of ten yens, which are subscribed by members and on which dividends are payable on occasion. Finally the banks have the right to receive deposits from their members and even the general public, if the prosperous course of the association's business justify this privilege. At the head of the association there is a Japanese director, appointed and paid by government. The People's Banks Associations were founded in 1907 and at the end of 1915 they numbered 240 and grouped 65,742 members. Their financial position may be resumed as follows :

Year	Number of associations	Number of members	Capital advanced by Go- vernment yen	Capital subscribed by members yen	Reserve Fund yen	Deposits yen
1910	117	43,747	1,170,000	—	59,785	—
1911 . . .	152	52,371	1,520,000	—	159,044	—
1912 .	188	67,497	1,880,000	—	275,108	—
1913 . .	208	80,193	2,080,000	—	396,330	—
1914 . .	227	60,322	2,265,000	694,300	491,289	108,521
1915 . . .	240	65,742	2,395,000	786,808	529,684	294,363

The considerable fall in the membership of the associations, from 80,193 in 1913 to 60,322 in 1914, is explained by the fact that the new regulation obliges members to add 10 yen per share to the capital funds of their asso-

ciation. This fall was only temporary, an increase of 5,420 members being noted for 1915.

As regards the business of the People's Banks this includes lending, collective buying and selling on behalf of members: For these purposes they enjoy by government grant the use of warehouses, numbering 41 in 1910, 76 in 1911, 127 in 1912, 178 in 1913, 195 in 1914 and 203 in 1915. The details of their business appear in the following table.

Year	Loans yen	Collective purchases yen	Sales on behalf of members yen	Profits yen
1910	762,816	12,982	45,640	102,215
1911	1,182,932	47,307	136,020	114,339
1912	1,716,697	49,920	366,281	116,897
1913	2,158,195	99,731	922,849	91,683
1914	2,147,278	96,967	563,532	43,433
1915	2,127,646	17,747	220,402	56,200

§ 3. THE ORIENTAL DEVELOPMENT COMPANY.

The Oriental Development Company was formed in virtue of a law dated March 1908 and began its activity in the following December.

In order to allow the company to take part in the development of the natural wealth of the country it was authorized to engage in agriculture and industry by selecting and inviting skilled farmers and others as immigrants into Korea and furnishing them with the necessary funds. The company works under the direct control of the government. Its capital is 10,000,000 yen.

Cultivated State lands measuring 10,037.8 cho were transferred to it in payment for 60,000 shares valued at 3,000,000 yen, taken up by the government, and these lands added to those which the company bought, to which it contributed or which it reclaimed, brought the total area it owned at the end of 1915 up to 73,364 cho, namely 49,080 cho of paddy land, 15,594 cho of upland, 2,244 cho of forests and 2,244 cho of other lands. During 1915 the company realized 1,600,000 yen from these lands.

At the end of 1915 the company had brought 2,942 Japanese families, aggregating 12,328 persons, into Korea, and had rented to them 5,251 cho of land, that is 4,681 cho of paddy land and 570 cho of upland. For the engagement of new Japanese immigrants government granted the company a subsidy of 300,000 yen a year.

It is a main business of the company to furnish funds, for the purpose

of realizing the wealth of the country, to settlers, farmers and others in Korea.

In 1915-16 the total sum of loans to farmers and others was 7,250,000 yen, being 320,000 yen less than in the previous year. Of this sum 3,270,000 yen were lent for purposes of agriculture, 1,820,000 yen for public undertakings, 1,650,000 yen for debentures issued by several Agricultural and Industrial Banks, and 500,000 yen for other purposes. The corresponding figures for 1914-15 were, respectively, 3,220,000 yen, 1,540,000 yen, 2,300,000 yen and 500,000 yen.

The loans for agriculture and public works had therefore increased, while those for various objects remained stationary, and those for the debentures of Agricultural and Industrial Banks much diminished.

MISCELLANEOUS INFORMATION RELATING TO CREDIT IN VARIOUS COUNTRIES.

ARGENTINE REPUBLIC.

THE NATIONAL MORTGAGE BANK. — National Mortgage Bank. Report on business in 1916-1917. Buenos Ayres, 1917.

The reports on the years 1916 and 1917 which the administrative council of the National Mortgage Bank has presented to the Minister of Finances show that, in spite of the crisis from which this institution has suffered for five years and which, for that matter, has been common to all countries, it has been able to resume its normal course and so attain to the liquidation of the burdens which during the crisis it could not avoid. The reforms proposed by the council, in the interest of the country and of the bank, are very important. They concern the institution of loans intended for land settlement and the development of stock farming, and also a special kind of insurance effected by means of the bank. These loans would allow the Mortgage Bank to found in the near future a Land Settlement Bank which would become one of the most important of Argentine institutions. As early as 1916 the administrative council had resolved to subdivide into small and easily sold lots, with a view to encouraging land settlement, the lands of debtors which should be awarded to it in payment of debts.

We are not overlooking the importance which the problem of land settlement, on which the whole economic life of the country depends, has always had in the Argentine. The National Mortgage Bank will therefore accomplish a truly benevolent work in offering to farmers land divided into small lots for which payment will be due at long terms.

The lands acquired by the bank would form one of the most efficacious bases for constituting colonies, which would allow the bank to harmonize its activity with private interests by granting loans equivalent to almost the whole value of the lands given to cultivation.

The author of the report notices the satisfactory result obtained in 1917 by increasing the issue of securities on the market. These securities in the last days of the year were at par. He observes that while the chief market for securities was formerly abroad, the Argentine market now absorbs the securities almost entirely, a circumstance which allows the hope that the concurrence of the two markets will in future be advantageous not only to the bank but also to the country.

In the report for 1916, as in that for 1917, there is question of the importance of the scheme for the development and reform of the savings-bank of the bank. This reform is necessary in view of the economic conditions of the Argentine.

The author of the report then notes the excellent results the bank has obtained by forming a selling and buying department which is meant to

facilitate the liquidation of properties intended to be sold by auction. This department allows debtors to avoid the costs attendant on sales of this kind and themselves to take part in the management of their own business.

In order to make the lending facilities offered by the bank known, the management decided to publish a paper, which is an organ for all study and research in the matter of mortgages.

As regards the results shown in the balance-sheets for 1916 and 1917 we think it opportune to reproduce the following data as to the bank's circulation and issues.

Year	Circulation	Series	Issue.	Amount	Average rate	Outstanding loans on 31 December
1916	512,987,075	2nd leg. 9,155—2nd series		9,305,300	94.26	574,829,407
1917	543,500,900	2nd leg. 9,155—2nd and 3rd series		42,695,200	93.47	507,567,307

These issues were constituted as follows on 31 December 1917 :

Series	Interest	Re-demption	Issued	Cancelled	Redeemed	Circulation
			pesos	pesos	pesos	pesos
A	7 %	1 %	20,000,000	20,000,000	—	—
B	"	"	15,000,000	14,441,850	558,150	—
C	"	"	15,000,000	15,000,000	—	—
D	"	"	20,000,000	17,523,350	2,476,650	—
E	"	"	20,000,000	17,556,430	2,443,570	—
F	"	"	15,000,000	13,169,800	1,830,200	—
G	"	"	10,000,000	8,676,800	1,323,200	—
H	"	"	61,000,000	48,690,300	3,646,200	9,284,800
I	6 %	4 %	2,539,900	2,156,000	383,900	—
J	"	1 %	9,264,100	6,191,200	905,200	2,167,700
K	5 %	"	70,165,000	40,579,350	4,493,850	25,091,800
L	6 %	"	89,966,000	36,263,050	5,370,200	48,332,750
C. H. A. 6 %	"	"	446,441,900	62,023,825	28,512,900	335,905,175
2nd leg. 9,155—1st series	"	"	49,926,300	2,168,825	2,406,825	45,350,650
2nd leg. 9,155—2nd series	"	"	48,840,000	371,500	1,253,300	47,215,200
2nd leg. 1955—3rd series	"	"	10,160,500	—	7,675	10,152,825
	—	—	903,925,000	304,812,280	55,611,820	543,500,900
In gold	5 %	1 %	20,000,000	11,682,739	188,861	8,128,400

The loans made by the bank in the years under review were also fairly important. They can be classified as in the following tables :

Capital	Number		Amount		Interest	
	1916	1917	1916	1917	1916	1917
			pesos	pesos	pesos	pesos
Loans in order	12,195	12,535	198,087,006	204,529,441	—	—
Loans on which a half-year's interest is in arrears	2,411	2,637	37,848,210	39,202,345	1,508,772	1,571,930
Loans on which two half-years' interest is in arrears	1,406	1,124	24,387,425	20,765,945	1,950,552	1,653,940
Loans on which more than two half-years' interest is in arrears	2,069	2,451	49,755,360	52,093,035	8,869,442	10,289,418
	18,081	18,747	310,078,001	316,590,766	12,328,766	13,415,288

Branches	Number		Amount		Interest	
	1916	1917	1916	1917	1916	1917
			pesos	pesos	pesos	pesos
Loans in order	6,120	7,135	132,464,940	157,456,505	—	—
Loans on which a half-year's interest is in arrears	1,809	1,883	34,217,710	40,195,075	1,385,764	1,620,368
Loans on which two half-years' interest is in arrears	1,179	992	29,047,560	22,399,810	2,338,452	1,805,725
Loans on which more than two half-years' interest is in arrears	2,008	2,336	68,535,740	70,632,325	5,508,272	5,685,415
	11,116	12,346	264,265,950	290,683,715	9,232,488	9,111,508

Reserves rose in 1916 to 41,046,389 pesos ; in 1917 to 45,549,243 pesos. The ordinary profits were 6,752,972 pesos in 1916 and 9,005,308 pesos in 1917.

CANADA.

AGRICULTURAL CREDIT IN MANITOBA. — *The Grass Grower's Guide*, Winnipeg, 6 November 1918.

We have already dealt with the organization in Manitoba, with the help of the provincial government and of the municipalities interested, of rural credit societies. Each society is directed by competent local resi-

dents of whom one must be the local representative of the Department of Agriculture. Every member subscribes for £100 worth of shares, and the provincial government and municipality subscribe for stock equal to the total stock for which the members subscribe. The society obtains funds from the bank at 6 per cent. and makes loans at 7 per cent., so that there is a margin of 1 per cent. to cover general costs.

We must recall that the loans are granted by the bank's board of directors which takes into account not only the technical qualifications of the farmer who applies for them and the securities he offers but also his interest. By borrowing through the medium of a society a farmer can easily procure funds for sinking wells, enclosing land, buying rope for binding and seeds and hiring pasturage, sometimes for repaying an earlier debt to a bank, and can avoid selling his produce on bad terms because he can wait for a rise in prices.

The following figures show the amount of the credit business of the active societies in 1915 (1).

Loans made amounted to \$201,934, distributed as follows among the various societies :

St Andrew's	\$ 22,248
Roblin	47,406
Tenby.	8,220
Arden.	17,900
Glenella	8,850
Swan River	25,135
Minitonas	31,475
Lansdowne	16,495
Westbourne	10,785
Lawrence	12,420

These loans were made for the following objects :

Putting in and harvesting crop	\$ 64,606
Breaking up new land	53,190
Buying stock.	36,218
Floating liabilities	19,860
Machinery	17,035
Implements	9,445
Threshing	1,580

By means of these loans more than 12,000 acres of land, previously unproductive, were brought under cultivation.

(1) Besides the societies to which these figures refer there are nine others which have not yet become active.

SWITZERLAND.

LOANS SECURED BY LIENS ON LIVE STOCK. — *Chronique d'agriculture et d'industrie laitière*, Fribourg, 23 November 1918.

The Federal Council has just made a new order with regard to placing liens on live stock. This modifies and completes the rules in force which experience has shown to be defective and even, in some cases, dangerous.

The innovations added to the original orders were, for the most part, suggested to the Federal Council by memorials rendered by the secretariat of the Swiss Peasants' Union. The following are the principal of them:

1. The authorization for lending transactions secured by a lien on live stock can be granted only to trustworthy credit establishments which bind themselves not to accept cautionary payments, comprehensive liens or other guarantees in addition to the lien. Credit establishments which do not conform to this rule, and have not made a declaration to such effect before 1 May 1918, will be deprived of the right to accept live stock as security for their advances of funds, and their names will be deleted from the list of authorized banks and funds.

2. Notice has been given by the officers of prosecutions to all establishments within their spheres, authorized to make loans secured by live stock, that all liens constituted from 1912 to 1915 will be annulled as by official right on 31 December 1917 if the renewal of the liens have not been required before that date.

3. The new order requires the lien to be considered to be a special one which, for instance, formally excludes the possibility of pledging a whole flock or herd.

4. In all the business necessary to placing a lien on a head of live stock the concurrence of the sanitary inspector is absolutely necessary. An exact description of the pledged animals must be made by his care, indicating distinctive signs. The idea of a metallic mark or brand has been given up, because while it would doubtless enable an indisputable identification of pledged animals it would hurt the debtor's pride.

The inconveniences for which the new order seeks to provide a remedy were due to unscrupulous horse-dealers who took unfair advantage of the facilities which the law wished to afford to small debtors, making their own profit out of the comprehensive guarantee. The concurrence of the inspector of live stock when the lien was created was usually required. It has become obligatory. It is he who will have to note the estimated value in the application for registration; and before he signs this document he will have to correct or complete any inexact or inadequate statements it may contain. The security of the creditor who acquires the lien will thus be strengthened, because the property concerned will be more exactly defined and described than has been the case.

Part IV: Agricultural Economy in General

AUSTRALIA.

AGRICULTURAL CONDITIONS AND LAND TENURE IN VICTORIA.

OFFICIAL SOURCE:

VICTORIAN YEAR-BOOK 1916-17, 37th issue, Melbourne 1918.

§ 1. GENERAL AGRICULTURAL CONDITIONS.

Victoria, the south-eastern State of the Australian continent, is still mainly an agricultural country, although with the growth of the great city of Melbourne her industries are becoming more and more important. The population of Melbourne formed 44.4 per cent. of the whole population of the State in 1910, 46.1 per cent. in 1913 and 49.7 per cent in 1916. The following figures seem to show that the process of industrialization is continuous :

	1901	1911
Total number of breadwinners in Victoria	534,049	577,053
» » » persons occupied by commerce .	79,048	91,611
» » » » » industry .	146,233	187,773
» » » primary producers	165,147	144,384

The great wealth of Victoria continues however to be in her soil. The figures which give the value of her principal exports refer entirely to the products of agriculture and mining. The conclusion is that the industry of the State is mainly applied to treating such of these articles of export as do not leave the country in an entirely raw State.

These figures admit of several interesting deductions. The first is that an overwhelming proportion of the wealth of Victoria is drawn from agriculture: of the value exported only £893,842 out of the total of £17,835,395 was derived from mining in 1913 and only £115,278 out of the total of £19,029,502 in 1917. Secondly the figures prove that Victoria is still a stockfarming rather than an arable, and still a sheepfarming rather

Articles exported from Victoria	Value in 1913	Value in 1917
	£	£
Wool.	6,282,291	6,149,212
Wheat and flour	2,763,870	5,391,477
Butter	1,681,987	2,189,025
Meat	1,634,806	697,850
Skins and hides	1,688,409	548,736
Leather	227,497	439,706
Tallow	371,316	246,091
Tin ingots	282,817	114,635
Gold (specie)	611,025	643
All other articles	2,291,377	3,252,127
Total	17,835,395	19,020,502

than a cattlefarming country. Thirdly they show that the total production of the State has continued to increase normally through the years of war.

From the point of view of agriculture Victoria may be considered as divided into eight districts, the Central, North Central, Wimmera, Mallee Northern, North Eastern and Gippsland districts. These have different conditions of climate and soil, largely dependent on their situation with regard to the State's long coastline and to the mountain range which traverses its territory from east to west. The Central District, which includes Melbourne, comprises both coast and hill country and has a rainfall above the average. Fruit growing, market gardening and dairy farming are carried on to supply the Melbourne market; and barley, peas and potatoes are grown. In some parts of the district there are large numbers of sheep. Next to it to the north is the North Central District which includes rugged country. Potatoes and barley are grown in this district; dairy farming and pig farming are practised extensively; and sheep are grazed over large areas. The Western District, which is bounded on the south by the coast, consists principally of rich, volcanic undulating plains, often stretching for miles without a break. The rainfall is adequate and the herbage most prolific; and it is therefore the pastoral industry which here is the most important. The best wool in the State is produced in this district, and the excellent grazing gives it the lead in dairyfarming. It yields important potato and hay crops and some onions, and recently wheat has been grown on parts of its territory. One third of the State's total wheat crop is grown in Wimmera, the next district to the north which has a much lighter rainfall. Here oats and hay are also produced, bare fallow, wheat, oats and grass succeeding each other by a system known as the Wimmera rotation. Sheep are grazed on the stubble. The Mallee District in the

extreme north west of the State is the latest to have been opened up to settlement. It is subject to periodic droughts and was long thought to be a mere arid waste, but better farming has done much for it and in the last decade it has become an important wheat producing area. It also yields a considerable oats crop. In the Northern, which lies north of the North Central District, wooded hills alternate with plains. The rainfall is average. A variety of crops are grown, including one fourth of the wheat and oats and one sixth of the hay of the State. Fruit growing is important and farming under irrigation is developing rapidly. The North Eastern District includes a large mountainous area and very fertile valleys adapted to intensive agriculture. Vineyards and orchards do well and the bulk of the State's tobacco crop is produced in this district. Gippsland, which lies along the coast in the eastern part of the State, is a largely mountainous country with a high rainfall. It has been less opened up to settlement than the rest of the State. Dairyfarming and sheep and cattle breeding are carried on in this district and maize and potatoes are grown.

The following figures give an idea of the growth of arable farming in Victoria in the last six decades.

Period	Average area annually planted in				
	Wheat	Oats	Barley	Potatoes	Hay
	acres	acres	acres	acres	acres
1855-1860	79,079	50,148	3 723	21,129	70,489
1865-1870	230,505	123,433	16,024	35,460	110,293
1875-1880	537,238	127,317	28,354	38,517	150,777
1885-1890	1,140,327	206,692	65,267	46,210	434,175
1895-1900	1,794,151	301,317	61,092	45,669	495,337
1905-1910	1,965,320	379,078	56,016	52,897	743,167
1913-1914	2,085,216	439,342	71,631	47,575	1,203,728
1916-1917	3,125,692	441,598	93,015	73 618	897,186

The parallel progress in stock and dairyfarming is shown by the following figures.

The preceding and the next table show, when taken together, that while, as we have already stated, Victoria remains a stockfarming country, its importance in this respect is gradually being overtaken by its importance as a producer of wheat and other crops. This is a natural consequence of the development the State: as settlement becomes closer arable farming inevitably increases. Dairyfarming, which requires a relatively large amount of labour, also tends to develop with density of settlement; and the figures showing the number of milch-cows in Victoria are evidence that of late years it has come to have some importance in this State.

Year	Number of horses	Number of cattle		Sheep	Pigs
		Milch cows	Other cattle		
1861	76 531	197,332	525 000	5 780,896	61,259
1871	209 025	212 193	564,534	10 477,906	180,109
1881	275,516	320,198	957,069	10,360,285	241 036
1891	436 469	395,192	1,387,689	12,692 843	282 457
1901	392,237	521 612	1 080 772	10 841,700	350,370
1911	472,080	668,776	878,792	12,862 665	333,261

§ 2. TENURE AND OCCUPATION OF LAND.

In our issue for January 1916 (1) we explained the system under which land is acquired and held in Victoria. In 1917 the State's total area of 56,245,760 acres was held as follows:

Lands alienated in fee simple	24,345,425 acres
Lands in process of alienation	7,751,415 "
Crown lands	24,148,920 "
Total	<u>56,245,760</u> "

A. Crown Lands. — The area of the crown lands in Victoria naturally diminishes as year by year portions of them are alienated. It is seen that in 1917 they constituted less than half of the total area of the State. They comprised the following classes of land:

	Acres
Permanent forests	3,360,240
Timber reserves	744 400
Water reserves	316,092
Reserves for agricultural colleges, etc. . .	85,100
Reserves in the Mallee	397,881
Other reserves	305 619
Roads	1,739 850
Water frontages, riverbeds, lakes, etc.	2,420,876
Unsold land in cities, towns and boroughs	
Land occupied under:	
Grazing area leases	2,502,556
Perpetual leases	228,543
Other leases	127,112
Temporary grazing licenses	9,621,642
Unoccupied land	2,299,009
	<u>24,148,920</u>

Of the unreserved area 12,433,959 acres, or by far the larger part, are held by 13,809 occupiers who have grazing leases or licenses. The area still available for settlement and alienation amounts altogether to 11,920,651 acres, and much of it is occupied under temporary grazing licenses. It is made up as follows :

	Acres
First class agricultural and grazing land	10,577
Second " " " " "	134,554
Third " " " " "	2,285,753
Unclassified " " " " "	3,678,636
Auriferous land	595,543
Swamps and reclaimed lands	1,491
Lands which may be sold by auction	9,833
Mallee lands which will eventually be classified as agricultural and grazing land	5,204,294
Total area remaining for disposal	11,920,651

The largest areas of first and second class agricultural and grazing land thus available lie in Gippsland and the North Eastern District.

B. *Privately Owned Lands.* — The following figures give particulars as to privately owned lands in Victoria in 1910 and in 1913.

These figures are interesting in that they show the decrease in the number and in the aggregate area of very large holdings. This decrease has been continuous for the last ten years. In 1906 the number of holdings over 1,000 acres in extent was 195, in 1910 it was 175 and in 1913 it was 151. The aggregate area of these holdings was 4,134,067 acres in 1910 ; 3,298,227 acres in 1910 ; and 2,652,696 acres in 1913. Therefore in the seven years from 1906 to 1913 the number of the largest holdings was reduced by 22.6 per cent. and their acreage by 35.8 per cent. On the other hand both the number and the area of holdings less than 1,000 acres in extent increased between 1906 and 1913. Such holdings of private land were in March 1913 held by 61,029 persons and had an aggregate area of 14,398,125 acres ; and they were occupied together with 4,024,897 acres of crown land. Thus the tenants of these smaller holdings held altogether 18,423,022 acres or 51 per cent. of the total occupied area. They controlled 64 per cent. of the total cultivated area and 49 per cent. of all the pastureland ; and they owned 73 per cent. of the horses in the State, 88 per cent. of the dairy cows, 66 per cent. of the other cattle, 90 per cent. of the pigs and 31 per cent. of the sheep.

Nearly 56 per cent. of the dairy cows and about 61 per cent. of the pigs were on holdings of no more than 320 acres.

The tenants of the largest holdings, those of more than 1,000 acres, are mainly sheepfarmers : they owned 61 per cent. of all the sheep in the State in 1913. Between 1910 and 1913 there was a marked decrease in the pastoral areas on estates between 5,001 and 10,000 acres in extent, but it was accompanied by an increase in the number of live stock grazed.

Privately owned land				Crown land held in conjunction with that privately owned	Total area occupied	Area under	
Size of holdings in acres	Year	Number of holdings	Area occupied			cultivation	pasture
			Acres	Acres	Acres	Acres	Acres
1 to 100	1910	23,305	836,826	442,413	1,279,239	228,227	1,051,012
		26,113	915,493	375,511	1,290,004	245,496	1,044,506
101	320	17,583	3,686,498	1,209,660	4,896,158	830,664	4,056,494
		18,483	3,819,680	1,216,829	5,036,509	875,525	4,160,984
321	640	9,676	4,623,839	1,900,058	6,523,897	1,182,254	5,341,643
		11,212	5,475,942	1,191,890	6,667,832	1,424,020	5,243,812
641	1,000	4,354	3,553,261	1,800,551	5,353,812	863,080	4,490,732
		5,221	4,187,010	1,241,667	5,428,677	1,075,000	4,353,677
1,001	2,500	4,159	6,178,744	2,461,135	8,642,879	1,254,392	7,388,487
		4,544	6,148,985	1,852,529	8,601,514	1,546,611	7,054,903
2,501	5,000	749	2,571,444	1,348,979	3,920,423	298,146	3,622,277
		820	2,803,419	1,085,769	3,889,188	352,258	3,536,930
5,001	10,000	239	1,651,979	1,397,984	3,049,963	85,379	2,964,584
		267	1,825,862	342,848	2,168,710	111,910	2,056,800
10,001 and more		175	3,296,227	145,420	3,443,647	45,770	3,397,877
		151	2,652,966	404,710	3,057,676	39,606	3,018,070
Total		60,240	26,400,818	10,709,200	37,110,018	4,796,912	32,313,106
		66,811	28,429,357	7,710,753	36,140,110	5,670,426	30,469,682

There is a tendency to reduce the scale on which sheepfarming is undertaken. Thus flocks of more than 15,000 sheep decreased by 68 per cent. between 1906 and 1917, while those of less than 500 sheep increased by 74 per cent. Owners of more than 15,000 sheep possessed 22.5 per cent. of the sheep in the State in 1906 and only 6.1 per cent. in 1917. On the other hand owners of less than 500 sheep owned 15.1 per cent. of the sheep in 1906 and 23.3 per cent. in 1917.

Of the thirty-four flocks of more than 15,000 sheep in Victoria in 1917, twenty-seven were on the great pastoral estates in the Western District. The North Central and the North-Eastern Districts are also principally grazing countries, while 78 per cent. of the cultivated land in the State lies in the Northern, Wimmera and Mallee Districts.

§ 3. CLOSER SETTLEMENT.

The closer settlement of the land of Victoria, of which our data as to production and as to the occupation of land have given some evidence, is

in part a natural response to the demand for land but it is stimulated by government action. In the article in an earlier issue of this review, already cited, the legislation relating to closer settlement is summarized.

A. *On Crown Lands.* — Certain special provisions have been made for the establishment of small holdings on crown lands. Any area of these lands, which is neither auriferous nor permanently reserved and on which the crown has expended money, may be proclaimed to be a Special Settlement Area and divided into allotments of no more than 200 acres each. Such allotments may be acquired on conditional purchase leases (1). They must always be used for the purposes of residence and agriculture and no person may hold more than one of them.

An important area of *swamp lands* has been reclaimed by the crown at considerable cost and is divided into holdings not exceeding 160 acres in area. When the value of one of these allotments has been determined it may be : *a*) let on a twenty-one years' lease ; *b*) let on a perpetual lease ; *c*) let on a conditional purchase lease, the price being paid in 63 half-yearly instalments together with interest at the rate of 4 $\frac{1}{2}$ per cent. on the part of the purchase money still due at the time of payment ; or *d*) sold by public auction, one eighth of the price being paid immediately in cash, and the rest, together with interest at the rate of 4 per cent., in from six to twenty half-yearly instalments.

Areas of no more than ten acres of crown land may be granted as *bee-farms* on annual licenses, the rent being one shilling an acre per annum. A bee-range license may be secured on payment of one halfpenny for every acre of crown land within a mile of the beefarm ; and all suitable timber, even on land held under a grazing lease or license, may, for the purpose of beefarms, be protected from destruction on any area.

A large portion of the land originally made available for *village settlements* (2) was found to be unsuitable for its purpose ; but an area of 19,989 acres is still thus occupied and is held by 809 settlers. Within village settlements a settler may acquire land not exceeding £200 in value.

B. *On Privately Owned Lands.* — The Lands Purchase and Management Board of Victoria has continued, under the provisions described in our previous article (3), to buy privately owned land, divide it into suitable allotments, and dispose of these to applicants for them. Such action is partly responsible for the general reduction in the size of estates which we have already noticed. The following figures supplement those included in our earlier article which referred to the years from 1910 to 1914.

The allotments are of three kinds. A "farm allotment", which provides its holder with his whole livelihood, may not be of a greater value than £2,500. "Agricultural labourers' allotments", which may not exceed £350 in value, are provided in the neighbourhood of large farms, and are allotted to farm labourers who live on them and cultivate them in their spare time. A labourer receiving the lease of such an allotment must

(1) See the article already cited, page 89.

(2) See the article already cited, page 96. — (3) *ibid.*, pp. 93-95.

Lands Acquired for Purposes of Closer Settlement by the Lands Purchase and Management Board.

	On 30 June			
	1914	1915	1916	1917
In occupation				
Number of holdings.	4,112	4,227	4,321	4,504
Area in acres.	449,791	460,592	494,965	517,500
Resident population.	16,800	17,200	17,600	17,782
Area unallotted in acres.	60,026	56,977	51,879	43,017

build a dwelling-house on it within one year. In the third place "workmen's home allotments" are provided near towns. Their land must not exceed £250 in value; they may not be allotted to persons whose income passes a fixed limit; a dwelling house worth at least £50 must be erected on them within a year of the date of the lease, and improvements worth at least £25 must be effected on them within two years.

C. On Irrigated Lands. — An important factor for the closer settlement of the land of Victoria has been the irrigation of arid tracts. Until 1905 this enterprise was controlled by various irrigation trusts which were financed by the State. But their work was rendered difficult by the sparse settlement of the country and by the fact that they had no power to make compulsory charges on the owners of the lands through which the irrigating channels ran. In 1905 the State Rivers and Water Supply Commission was constituted by Parliament and entrusted with the management of all irrigation works except those controlled by the First Mildura Trust. This commission is now governed by the consolidated Water Act of 1915 and the Water Act of 1916. In pursuing its work it has energetically pushed the closer settlement of the lands served by the irrigating channels, and it has benefited by a system of rating the owners of these lands compulsorily and of allotting water rights to them.

Irrigation in Victoria has taken place in the Mallee and Northern Districts along the south bank of the great Murray River which is the State's northern boundary, in the Northern District along the banks of the Murray and of its tributary the Goulburn, and in the Central District on the banks of the Werribee. The following table gives details of the work from 1909, the year in which the policy of promoting closer settlement and allotting water rights was first followed, until 1917.

District having allotted water rights	Area irrigated	
	1909-10 Acres	1916-17 Acres
<i>Supplied from the Goulburn :</i>		
Shepparton		10,270
Rodney	32,356	56,681
Tongala	2,270	4,164
Rochester	500	15,437
Dingee	—	1,140
Tragowel Plains	20,000	30,737
<i>Supplied from the Murrumbidgee :</i>		
Cookana	12,000	14,528
Gamawanna	7,825	14,037
Koonbrook	5,020	13,260
Swann Hill	5,410	5,676
Nyah	569	1,526
Mulbin	202	5,271
<i>Supplied from the Werribee :</i>		
Bacchus Marsh	31	
Werribee		
Total	86,192	185,905

In all the irrigated districts 82,000 acres have now been settled by the State. Some details are given by the following figures :

Area bought by the State	120,300 acres
Area subdivided	104,300 "
Number of properties subdivided	162
Number of families on this area before its subdivision	127
Number of holdings into which it has been subdivided	1,948
Average area of such holdings	20 to 176 "
Number of such holdings now occupied	1,576
Increase in number of occupying families since subdivision	1,449

Thus the total area subdivided, some 104,000 acres, supports twelve times as many families as it did before it was acquired by the State, not to mention the increase in its productivity due to irrigation and an intensi-

fication of cultivation. When deductions have been made for roads, channels and township reserves, the total area made available for settlement is found to be 100,000 acres and it is divided into 1948 blocks. Of these, 374 blocks, having an area of from 2 to 100 acres each, have still to be allotted; and about 16,000 additional acres have been reserved and will be subdivided and prepared for settlement as soon as possible.

In 1916-1917 the Water Supply Commission granted blocks of irrigated land to 127 applicants of whom nineteen were returned soldiers; and a further area of 400 acres, in Mallee and on the Murray, was divided into twenty-three blocks which all were allotted to returned soldiers.

As regards the First Mildura Irrigation Trust, the only body other than the commission which still controls irrigation, it manages the Mildura Irrigation Settlement, established in 1887 on the Murray River and in Mallee. The work of the trust may be estimated from the fact that this settlement supported a population of 8,000 in December 1916 as against one of only 2,321 in April 1891.

The following table gives details as to the utilization of the total irrigated area in Victoria from 1909 to 1917:

Crop	1909-10	1913-14	1914-15	1915-16	1916-17
	Acres	Acres	Acres	Acres	Acres
Cereals	23,715	74,927	74,658	61,663	18,790
Lucerne grass	24,124	55,535	71,217	70,372	74,042
Sorghum and other animal fodder crops	8,094	21,374	37,759	15,412	14,707
Pasture	50,541	110,193	81,463	82,622	87,458
Vineyards, orchards and gardens	17,524	26,489	28,666	32,918	38,246
Fallow	4,988	8,536	13,368	5,621	3,220
Miscellaneous	785	2,233	2,214	2,399	4,242
	129,771	299,287	309,345	271,007	240,705
No details available (private divisions of waters).	8,000	18,000	15,000	17,000	17,000
<i>Total.</i>	137,771	317,287	324,345	288,007	257,705

DENMARK.

AVERAGE WORKING HOURS AND WAGES IN AGRICULTURE IN 1915.

OFFICIAL SOURCE :

DANMARKS STATISTIK — STATISTIK AARBOG 1917 (*Statistics of Denmark. Statistical Year-book 1917*). Copenhagen, 1917

The Statistical Yearbook of Denmark, published in 1917, allows us to review the problem of agricultural labour in 1915 in the two aspects of duration of work and wages. The data are given for the whole country, its division into Jutland and the islands being observed. Seasonal differences and the diversity among persons employed on agriculture — men and women receiving board and men working by the day and not boarded by their employers — are also taken into account. A reference to the data for 1910 and 1905 allows of useful comparisons which cover a period of ten years.

In spring average daily working hours were, in terms of hours and tenths of hours, 9.9 hours, as against 10.2 hours in 1910 and 10.4 hours in 1905. In the time of harvest this average was 10.2 hours in 1915, having been 10.5 hours in 1910 and 10.7 hours in 1905. In winter it was 8.3 hours. The total resting time granted during the day was then only 1.3 hours instead of 2.2 hours, and less effective work was done in spring than at the time of harvest and in winter than in spring. We should also notice that there were 8.6 winter working hours in 1910 and 8.7 in 1905, so that in ten years there was a diminution of a little less than half an hour.

The preceding figures apply to the whole country. We will now examine the particular position with regard to them of Jutland and the islands.

In *Jutland* work lasted in spring for 9.8 hours in 1915, 10.2 hours in 1910 and 10.3 hours in 1905. During the harvest it lasted for 10 hours in 1915, 10.5 hours in 1910 and 10.6 hours in 1905. The decrease was therefore more accentuated in harvest-time than in spring. In winter there were 8.1 working hours a day in 1915, 8.5 in 1910 and 8.4 in 1905.

In the islands work lasted in the spring for 10.1 hours in 1915, 10.3 hours in 1910 and 10.5 hours in 1905. During the harvest it lasted for 10.2

hours in 1915, 10.5 hours in 1910 and 10.7 hours in 1905. In winter 8.5 hours were registered for 1915, 8.6 for 1910 and 8.9 for 1905.

The following table gives all these data, which can thus be apprehended at a glance.

TABLE I. — *Average working hours in agriculture in Denmark from 1905 to 1915.*

	Islands			Jutland			Denmark		
	Spring	Harvest	Winter	Spring	Harvest	Winter	Spring	Harvest	Winter
1915	10.1	10.2	8.5	9.8	10.0	8.1	9.9	10.2	8.3
1910	10.1	10.5	8.6	10.2	10.5	8.5	10.2	10.5	8.6
1905	10.5	10.7	8.9	10.3	10.6	8.4	10.4	10.7	8.7

These figures need no comment other than a note that working hours in agriculture seem to be a little longer in the islands than in Jutland, where moreover the seasonal variations are also more marked, especially between spring and harvest-time, and where intervals for rest are a little less long in spring and harvest-time but a little longer in winter. These remarks apply to relatively low figures and their importance should not be exaggerated. They are no more than indices, found with sufficient clearness throughout the period under review.

The wages for the work of which we have noted the duration are as follows. Boarded workers receive yearly wages estimated, in the statistics for 1917, as made up of three parts, those paid for summer and winter, respectively, and that representing the value of food. For men throughout the country the total of these three parts of wages represented in 1915 a sum of 795 crowns, as against 627 crowns in 1910 and 509 crowns in 1905; that is it had increased by 118 crowns in the first and by 168 crowns in the second of these quinquennial periods. In summer wages were equal to 285 crowns in 1915, 239 crowns in 1910 and 184 crowns in 1905, having therefore increased by 55 crowns between 1905 and 1910 and by 46 crowns between 1910 and 1915. Winter wages were 156 crowns in 1915, 125 crowns in 1910 and 95 crowns in 1905, thus increasing by 30 crowns between 1905 and 1910 and by 31 crowns between 1910 and 1915. The food supplied was valued at 354 crowns in 1915, 263 crowns in 1910 and 230 crowns in 1905.

We will now give in a second table, taken from the official statistics, the elements on which the calculations and deductions in the remainder of this article are based :

TABLE II. — *Wages of Boarded and Day Labourers in Agriculture, in Denmark, from 1905 to 1915 in crowns.*

		Average yearly wages of boarded labourers								Day labourers fed				
		Men				Women				Average daily wages				Average yearly wages
		Summer	Winter	Food	Total	Summer	Winter	Food	Total	Summer and spring	Harvest	Winter		
Islands	1915	264	157	350	771	141	121	306	568	2 65	3 17	2 10		770
	1910	216	125	69	609	120	102	232	454	2 05	2 64	1 72		630
	1905	166	97	220	489	97	80	193	370	1 75	2 35	1 40		545
Jutland	1915	304	154	359	817	164	102	303	569	3 22	3 56	2 29		890
	1910	257	123	264	644	135	93	228	446	2 60	2 97	1 75		720
	1905	203	92	233	528	106	62	201	369	2 16	2 49	1 45		615
Denmark	1915	285	156	354	795	153	111	305	569	2 94	3 30	2 19		830
	1910	270	125	263	658	120	91	229	4 9	2 34	2 80	1 75		680
	1905	184	95	200	509	102	71	197	370	1 95	2 42	1 44		510

The figures show that the total wages of boarded male agricultural labourers from 1905 to 1910 increased by 23 per cent. From 1910 to 1915 they increased by further 26 per cent.

We will now examine the divergences from this general situation in the different parts of the country, Jutland and the Islands.

In *Jutland* the total wages of boarded men labourers, including their food, represented a sum of 817 crowns in 1915 as against 644 crowns in 1910 and 528 crowns in 1905; that is it increased by 116 crowns from 1905 to 1910 and by 173 crowns from 1910 to 1915. The part attributed to summer wages was 304 crowns in 1915 as against 257 crowns in 1910 and 203 crowns in 1905, that is it increased by 54 crowns from 1905 to 1910 and by 47 crowns from 1910 to 1915. Winter wages were 154 crowns in 1915 as against 123 crowns in 1910 and 92 crowns in 1905; that is they increased by 31 crowns from 1905 to 1910 and by the same sum from 1910 to 1915. As regards the food supplied it is estimated as having had a value of 359 crowns in 1915, 264 crowns in 1910 and 233 crowns in 1905, that is it increased in value by 31 crowns from 1905 to 1910 and by 95 crowns from 1910 to 1915.

In this part of Denmark the total estimated yearly cost of a boarded labourer is rather greater than the average for the whole year. Only one of its constituent elements is less, namely the winter wages. This is true of the whole decade considered. The relative increase would seem however to have been slightly less than the average for the whole country. The total of wages shows a rise of 21 per cent. in the first and of 26 per cent. in the

second quinquennial period considered. Summer wages show an increase first of 26 and then of 18 per cent. The increase in winter wages only is above the average and is one of 33 per cent. and 25 per cent. successively; but nevertheless, the basis being a slightly lower figure, a balance was not established and this part of wages remained slightly below the average. As regards the rise in the price of food, it was slightly below the average in the first and slightly above it in the second quinquennial period, being successively 13 per cent. and 35 per cent.

In the *islands* the total amount calculated as the wages of a boarded male agricultural labourer was 771 crowns in 1915, that is 24 crowns less than the average and 46 crowns less than the average in Jutland. In 1910 the amount was 609 crowns and in 1905 it was 489 crowns. There was thus an average increase of 120 crowns from 1905 to 1910 and of 162 crowns from 1910 to 1915. The part constituting the *summer* wages was 264 crowns in 1915 as against 216 crowns in 1910 and 166 crowns in 1905, the increase from 1905 to 1910 being thus 50 crowns and that from 1910 to 1915 48 crowns. Winter wages were 157 crowns in 1915, 128 crowns in 1910 and 97 crowns in 1905, thus increasing by 31 crowns from 1905 to 1910 and by 29 crowns from 1910 to 1915. As regards the sum reached by the value of food, it was 350 crowns in 1915 as against 265 crowns in 1910 and 226 crowns in 1905, that is it increased by 39 crowns in the first and by 85 crowns in the second period. It should be noted that the absolute increase in the price of food was greater in the islands than in Jutland in the first period, the converse being true in the second period.

From 1905 to 1910 the increase in the total wages of boarded male agricultural labourers was 24 per cent., that is 1 per cent. more than that of the general average and 3 per cent. more than that of the average for Jutland. Between 1910 and 1915 this percentage rose to 26, being equal to the average for the whole country and Jutland in the same period. The increase in summer wages reached 30 per cent. in the same quinquennial period and 22 per cent. in the second one, that is 4 per cent. more in each of these two periods than in Jutland. Winter wages, being already higher in the islands than in Jutland, increased slightly less, that is by 31 per cent. and 22 per cent., respectively, in each of the two quinquennial periods considered. The sum counted for food increased by 17 per cent. in the first and by 32 per cent. in the second period.

We will now notice some considerations arising out of an examination of the wages of boarded women workers.

In this category of workers and for the *whole country*, total wages, including food, were 569 crowns in 1915, 449 crowns in 1910 and 370 crowns in 1905; that is they increased by 79 crowns from 1905 to 1910 and by 120 crowns from 1910 to 1915. The part constituted by summer wages was 153 crowns in 1915, 129 crowns in 1910 and 102 crowns in 1905; that is they increased by 27 crowns in the first and by 24 crowns in the second quinquennial period. Winter wages were 111 crowns in 1915, 91 crowns in 1910 and 71 crowns in 1905; that is they underwent two successive rises of 20 crowns. The part attributed to food was 305 crowns in 1915, 229 crowns

crowns in 1910 and 197 crowns in 1915 ; that is it increased first by 32 crowns and then by 76 crowns.

In *Jutland* total wages represented 569 crowns in 1915, 446 crowns in 1910 and 369 crowns in 1905 ; that is they underwent two successive increases, respectively of 77 crowns and of 123 crowns. Summer wages reached 164 crowns in 1915, 135 crowns in 1910 and 106 in 1905, thus increasing twice over by 29 crowns. Winter wages were 102 crowns in 1915, 83 crowns in 1910 and 62 crowns in 1905, thus increasing first by 21 crowns and then by 19 crowns. The amount assigned to food was 303 crowns in 1915, 228 crowns in 1910 and 201 crowns in 1905 ; the increases in the two quinquennial periods being thus 27 crowns and 75 crowns, respectively.

In the *islands* the total amount of wages, including food, was 568 crowns in 1915, 454 crowns in 1910 and 370 crowns in 1905, the two increases being thus of 84 crowns and of 114 crowns respectively. Summer wages were 141 crowns in 1915, 120 crowns in 1910 and 97 crowns in 1905 ; that is they underwent successive rises of 23 crowns and 21 crowns. Winter wages reached 121 crowns in 1915, 102 crowns in 1910 and 80 crowns in 1905 ; that is they increased by 22 crowns in the first and by 19 crowns in the second quinquennial period. The value of food was 306 crowns in 1915, 232 crowns in 1910 and 193 crowns in 1905, increasing, that is, by 39 crowns from 1905 to 1910 and by 74 crowns from 1910 to 1915.

These increases in the wages of boarded women workers which we have expressed in absolute figures were as follows in relative figures. In the *whole country*, total wages, including food, rose by 21 per cent. from 1905 to 1910, that is by 2 per cent. less than men's wages of the same category. A further increase of 26 per cent. on the 1910 figure was experienced from 1910 to 1915, this percentage of increase being equal to that found in the corresponding men's wages. Women's *summer* wages underwent two increases, of 26 per cent. and of 18 per cent., that is less by 3 per cent. and 4 per cent., respectively, than the corresponding increases in the case of men. *Winter* wages increased successively by 28 per cent. and 22 per cent., that is by 3 per cent. and 2 per cent. less than those of men. The percentage of food was 16 per cent. in the first quinquennial period, that is 2 per cent. less than in the case of men ; and 33 per cent. or 1 per cent. less than in the case of men in the second period.

In *Jutland* total wages, including food, increased first by 20 per cent. that is by 1 per cent. less than the men's wages, then by 27 per cent. or 1 per cent. more than the men's wages. The part represented by *summer* wages rose by 27 per cent. in the first quinquennial period, that is by 1 per cent. more than the men's wages, and by 21 per cent. or 3 per cent. more than the men's wages in the second period. *Winter* wages underwent a first increase of 33 per cent., equal to the increase in men's wages, and a second rise of 22 per cent. or 3 per cent. less than men's wages. The estimated value of food was first 13 per cent. as in the case of men, then 32 per cent. or 3 per cent. less than in the case of men.

In the *islands* total wages, including food, increased first by 22 per cent.

and then by 25 per cent., that is by less, by 2 per cent. and 1 per cent. respectively, than in the case of men. *Summer* wages increased first by 23 per cent. and then by 17 per cent., these increases being thus less by 7 per cent. and 5 per cent. than they were in the case of men. The increases affecting *winter* wages were 27 per cent. and 18 per cent., that is in both cases less by 4 per cent. than the corresponding increases of men's wages. The percentages of food, on the other hand, increased by 20 and 31, that is by 3 per cent. and 1 per cent., respectively, more than in the case of men.

The *total* wages of boarded women workers were noticeably the same in both parts of the country. Actual wages, excluding food, were rather higher in the islands than in Jutland in the first and rather lower in the second quinquennial period. If we take 100 to be the figure for the actual wages, excluding food, of boarded women workers in Jutland, we find that in 1915 they were 105 in the islands, 101 in 1910, and 98 in 1915. This difference concerns the value of food which re-establishes the balance.

We have now to examine the position of journeymen, who are paid by the day and not fed.

In the *whole country* *spring and summer* daily wages for workers of this category were 2.94 crowns in 1915, 2.34 crowns in 1910 and 1.95 crowns in 1905. The distribution among the two parts of the country is as follows. In *Jutland* wages of 3.22 crowns were received in 1915, 2.60 crowns in 1910 and 2.16 crowns in 1905. In the *islands* the sum was 2.65 crowns in 1915, 2.08 crowns in 1910 and 1.75 crowns in 1915.

Harvest wages in the *whole country* were 3.36 crowns in 1915, 2.80 crowns in 1910 and 2.42 crowns in 1905. In *Jutland* daily harvest wages were 3.56 crowns in 1915, 2.97 crowns in 1910, 2.49 crowns in 1905. In the *islands* the corresponding amounts were, respectively, 3.17 crowns, 2.64 crowns and 2.35 crowns.

Winter wages in the *whole country* were 2.19 crowns in 1915, 1.75 crowns in 1910 and 1.44 crowns in 1905. In *Jutland* they were 2.29 crowns in 1915, 1.78 crowns in 1910 and 1.48 crowns in 1905. In the *islands* the respective corresponding amounts were 2.10, 1.72 and 1.40 crowns.

It is easily seen that average daily wages of this category were always, during the period under review, lower in the islands than in Jutland, and that this disproportion was accentuated from 1905 to 1915. Thus daily wages on the *islands* constituted in 1905, 1910 and 1915 the following respective percentages of daily wages in *Jutland*: in *spring and summer* — 81, 80 and 80; during *harvest* — 94, 88 and 89; in *winter* 94, 96 and 91. The position of day labourers is less unfavourable in the islands as compared with Jutland in winter and during harvest than in summer and spring, but always has this comparative inferiority where labourers of the same category are concerned.

The increases of the wages of daily labourers in the two quinquennial periods — 1905 to 1910 and 1910 to 1915 — and the three seasons reviewed were as follows: in the *whole country* — 20 and 25 per cent., 15 and 20 per cent., 21 and 25 per cent.; in *Jutland* — 20 and 23 per cent., 19 and 19 per cent., 20 and 28 per cent., in the *islands* — 18 and 27 per cent., 12 and

20 per cent., 22 and 22 per cent. It follows that the increases of wages were comparatively less than in the case of boarded labourers. The latter received the greatest increase of their wages in the first of the two quinquennial periods, while the day labourers received a far greater rise between 1910 and 1915 than between 1905 and 1910.

We should also take into account that in these statistics, published in 1917, it was thought right to estimate agricultural day labourers' wages at the average for a year which they would have reached had work been permanent. The figures in this connection are the following : for the *whole country* wages from 1905 to 1915 were successively 580, 680 and 830 crowns ; in *Jutland* they were 615, 720 and 890 crowns ; and in the *islands* 545, 630 and 770 crowns.

We should not forget that day labourers receive the value of about 20 crowns a year in kind.

SPAIN.

THE DRAINING AND BRINGING UNDER CULTIVATION OF LAGOONS, MARSHES AND MARSHY LANDS.

SOURCE :

LEY RELATIVA A LA DESECACIÓN DE LAGUNAS, MARISMAS Y TERRENOS PANTANOSOS (*Law as to the draining of lagoons, marshes and marshy lands*) *Gaceta de Madrid*, Madrid, 27 July 1918.

§ 1. NATURE OF THE LAW OF 24 JULY 1918.

The Spanish government has been preoccupied by the increase in the area of the lands, once productive, which have gradually been invaded by water from the sea or rivers or as a result of irrigation. Great sheets of water have thus been constituted and have become a home of infection and paludal poisoning, diminishing the cultivable area at the same time. The government has therefore promulgated the law of 24 July 1918 by which it is proposed to render these lands healthy and bring them under cultivation.

This law does not aim only at hygiene and the good sanitary condition of the country, but also proposes to make fully productive these uncultivated lands on which, owing to special circumstances, a farmer cannot obtain a yield and his effort and labour are of no economic use. The law is intended, therefore, to suppress such obstacles, so that work shall become productive on this land which, after fitting preparation, can and ought to contribute to increasing the agricultural wealth of the country.

It is certain that a preoccupation with this necessity had its effect on the law now in force as to the system of waters. It grants owners of lands of this kind facilities for making them healthy and bringing them under permanent cultivation. But practice has shown these measures to be insufficient and ineffective, and the need is for stronger government action and greater State assistance, in order that these muddy, marshy lands, these marshes and lagoons, may if necessary be drained, and may afterwards be brought under cultivation and handed over to permanent farming. An area of at least 100 hectares requires important works which an individual can undertake only rarely. It is therefore deemed necessary to stimulate public interest by granting to an owner the legal terms of a suitable expropriation, afterwards helping him economically with the works, and by according him also the accessory exemptions which are necessary

(1) *Ley de Aguas* (Waters Law) of 13 July 1879, Chap. VII.

in order that enterprises of this kind, creating as they do new and important wealth, may give integrity to the works undertaken by an individual and allow him to derive from them the profits legitimately his.

§ 2. CONCESSIONS FOR DRAINING LAND AND RENDERING IT HEALTHY AND THEIR TERMS.

Coming to an examination of the terms of the law which occupies us, we have to state that it first provides that the State may concede and aid, on determined conditions, the drying and the sanitation of lagoons, marshes, and marshy and boggy lands whenever there is question of an area of more than 100 hectares. The concession made shall be considered to imply a declaration of the public usefulness of the works to be executed, whether a forced expropriation or a permanent or temporary occupation of these lands be in question. The concessionary may immediately occupy and make use of the lands belonging to the State, but this will not prevent the subsistence of the legal services rendered thence.

Next, in order that its provisions may be more exactly understood, this law fixes what is meant by lagoons, marshes and marshy and boggy lands.

Every natural deposit of fresh water, or even of briny water not emanating from the sea, which is of insufficient extent to constitute a real lake, is to be taken to be a lagoon.

All low-lying land within the reach of the existing or former estuary of a river shall, whatever be its nature, be taken to be a marsh or fen, if it be periodically flooded by tides or at times of spate, and if it remain boggy until evaporation cause the waters accumulated in it to disappear, or if it be not boggy or muddy but produce unhealthy emanations at low tide or at times of calm.

Marshy and boggy lands are those in which stagnant water or mud are found abundantly, even if they be not extensive enough, or boggy for sufficiently long at a time, to allow them to be considered natural marshes.

Concessions are made on the following conditions. Every private corporation or enterprise which has its headquarters in Spain may present drainage schemes and apply for the concession of the works and the necessary aid.

When once the works have been executed in accordance with an approved scheme, the concessionary becomes owner of the lands which have been rendered healthy; but those lands which belong to the State and have been ceded to him gratis will return to the State ninety-nine years after the works have been completed. The concessionary may none the less have them entered in his name in the property register, although as soon as it has been proved that they have been drained, they will be liable eventually to return to the State, as stated. If the concessionary wish to obtain the removal of this liability he may do so by repaying to the State, when it has ceded all the drained lands within a determined concession, the amount

of the State aid he has received and interest on it calculated at the rate of 3 per cent. per annum from the day he received it. If the improved lands within a concession have been taken partly from a property, private or other, which the State has bought in order to make a free grant of them for the term of ninety-nine years already mentioned, the concessionary must pay the State the value fixed for the tax if he wish the clause stipulating the return to the State of the lands to remain ineffective, he acquiring perpetual ownership. This clause will be ineffective when the concession is made to a commune or province or a consortium of communes or provinces.

The State will subsidize works of drying lands and rendering them healthy by making the concessionary a grant of which the amount will be determined, when the concession is made, in relation to the figure of the proposed specification, but will never exceed 60 per cent. of this specification. In fixing the amount of State aid, the area on which the works of drainage and improvement are to take place and the extent to which they affect the general interest will be taken into account.

Concessions made under the system of the law of 1918 will confer, in accordance with its provisions, the following accessory advantages :

1) Exemption from the tax on chattels and on the stamp-duty for obtaining the concession, for all deeds relative to the constitution and issue of shares by bodies formed to commission and accomplish the works in question, and for the purchases made by the concessionary following on forced expropriations to allow of the works ;

2) Exemption from the contribution deductible from profits earned by the capital supposed to be invested in these works ;

3) Temporary exemption for ten years from the time the works are finished from the land tax on the increase in the production of the lands, due to their sanitation or drainage, as compared with the production ascribed to them by the Ministry of Finances when the works were begun.

If, in consequence of works of drainage, roads or canals are constructed which can be used for traffic, the concessionary can make private use of them without restriction, but if he wish to place them at the service of public traffic in return for payment he must first submit the tariff of his charges to the approval of the competent authorities.

§ 3. PROCEDURE APPLIED TO CONCESSIONS.

The law subsequently explains the method of applying for concessions of land to be drained and made healthy and the procedure for dealing with applications.

It establishes in the first place that there must be presented to the prefect of the province in which lies the greater part of the land in question a complete study of the scheme, comprising all the district to be drained, the specification of the works, the price of the lands which must be purchased, the area of the part which must be drained. At the same time an order

must be presented for the payment of 1 per cent. of the specification of the works, except when public corporations are the applicants for a concession.

When application has been made for a concession, a period of thirty days will begin during which all applications regarding the lagoon, fen or marshy land in question will be received, so long as they are accompanied by the data or documents cited. In every case preference will be given to applications from public corporations. Applications from individuals or firms will be subject to the required processes in the order in which they are presented. As regards granting concessions, preference is given to the application which is accompanied by the most profitable scheme, that is the scheme which in the opinion of the administration, after it has been examined, will bring about the drainage of the lands at the lowest price per hectare and cover the largest area, and which offers the surest guarantees of success.

When once the interval of thirty days has elapsed no more applications will be received until those already presented have been dealt with. The administration will begin an enquiry into the applications and schemes presented, in order to become acquainted with the general utility of the works, their importance, and the profit they may be expected to yield. Within a period of no more than sixty days all persons interested and all wishing to express an opinion on the subject will be heard. At the same time the Management of Public Works will set on foot a testing of the scheme and an enquiry as to its technical and economic conditions. There will be a similar enquiry on the part of the chief of the competent agronomic department, who will determine the probable yield and profits from the cultivation of the drained or improved lands, and the special conditions, suited to these lands, which he thinks should be imposed on the concessionary.

These preliminaries having been gone through, the council of ministers will decide on the proposal of the Minister of the *Fomento* if there is occasion to grant the concession, will fix the amount of the grant and the conditions to which it will be subject, and will determine the intervals of time within which the works must be executed.

The concessionary, when not a public corporation, must deposit at the Deposits Fund, within fifteen days from the time when the concession is made, an amount equal to 5 per cent. of the total specification. This sum will be returned to him as gradually he comes to have invested double its amount in the works, the amount of the official grant being deducted. The concessionary will also be obliged to begin the works within six months of the date of the concession.

The amount of the official grant will be used in proportionate shares for the different works executed. Increases and reductions of the sum in the specification, following on duly approved modifications of the scheme, cannot cause the amount of the grant to vary unless they imply a diminution of the total area subjected to works of drainage.

In duly proved cases of *force majeure*, or in cases when reasonable excuses for delay are advanced after half the works have been executed,

a prorogation of the intervals of time fixed in the deed of concession can be obtained. These prorogations may not be for a longer period than half the fixed interval.

The concession may lapse in any one of the following cases: *a*) if the concessionary have not made his cautionary payment of 5 per cent. within the interval of time fixed by law; *b*) if the works have not been begun within the legally established interval of time, and if the delay be not due to difficulties arising in the course of the procedure for the expropriation of land indispensable to the execution of the work — in this case the concessionary should, in order to prevent the concession from lapsing, deposit a sum equal to the value of these lands; *c*) if the various stages of works have not been passed in the intervals of time allotted to each of them, works not executed strictly in accordance with the terms of the scheme being taken to be unfinished; *d*) when, during the course of works, lands are not kept in a desired state of dryness and sanitation.

The declaration that a concession has been annulled will involve for the concessionary the loss of his deposit. If when this declaration is made works have been executed of which it is considered advisable to continue the execution and systematization, the government will undertake their preservation and completion, either itself or by means of a new concession. In this case the first concessionary will have the right to be indemnified for the value of the scheme and the works of recognised usefulness, all the grants he has received and all costs of maintenance borne by the State being deducted.

Finally the law of 24 July 1918, of which it is not necessary to emphasize the agricultural and social importance, provides that lands near urban centres, and liable to be included in them as population increases, cannot be included in the concessions for the drainage and bringing under cultivation of land to which the law refers.

MISCELLANEOUS INFORMATION RELATING TO AGRICULTURAL ECONOMY IN GENERAL, IN VARIOUS COUNTRIES.

FRANCE.

THE LAW OF 27 NOVEMBER 1918 AS TO THE REDIVISION OF LANDS — *Journal officiel*, 1 December 1918.

Hitherto the redivision of lands in France has been governed by the laws of 21 June 1865 and 22 December 1888 as to syndical associations. These laws provide for two kinds of associations, free and authorized.

The former can be constituted only with the unanimous consent, expressed in writing, of the persons interested. The others can be formed on the basis of a mere majority. The required majority varies according to whether the proposed works are of the nature of conservation or improvement; and while for the former case an association can be authorized simply by a prefect's decree, in the latter the usefulness of its enterprise must be recognized by the Council of State before it can receive administrative sanction. The authorization an association receives not only confers certain advantages on it, and imposes on it certain obligations of an administrative character, but also gives it the right to compel recalcitrant individuals, who benefit by the works it undertakes in the common interest, to participate in these works and bear a proportion of expenses. This is evidently a right which of its nature depends on the public authority, and of which it seems that the exercise ought to be restricted to representatives of the public authority, within the limits strictly fixed by the law. The first law governing the status of syndical associations, that of 21 June 1865, purported indeed to confer this right only on associations aiming at works of conservation of so evident a public utility that some of them — the protection and preservation of seawalls, river embankments, etc. the cleansing and deepening of unnavigable streams, the draining of marshes — could be executed, failing an association regularly constituted by persons interested, by the administration itself, in right of the powers it held, the persons interested being compelled to contribute to the extent of the benefit they derived.

But experience showed that very little was to be expected of this law, if the administrative authority were persistently excluded, so that associations aiming at land improvement in the collective interest were deprived of all coercive right. Several deputies, thinking the law of 1865 needed amendment on this point, presented to the National Assembly on 23 March 1873 a proposal to extend the advantages of the authorization and all its consequences to all the syndical associations. This proposal received the open support of the agricultural world: out of 140 syndical cham-

bers consulted by the Ministry of Agriculture 110 gave an opinion favourable to it. It was adopted by the commission appointed to examine it, but this commission, because of the importance of the questions it raised, thought itself obliged to submit it to the Council of State. The council in a pronouncement, accompanied by an ample justifying statement, decided that, owing to the distinction which the law of 1865 had established between works of conservation and improvement and speculative undertakings, there would be no occasion to admit to the benefits of the authorization, except in the cases for which the law provides, any but the associations whose enterprise is recognised by the Council of State to be of public usefulness. Matters were left thus, the proposal leading to nothing.

When later it was thought necessary to revise the law of 1865 there was a return to the solution suggested by the Council of State. In virtue of the provisions of the law of 22 December 1888, which completed and modified that of 1865, all the syndical associations undertaking not only the works specified in the various clauses of Article 1, but also those known generally as works of agricultural improvement in the collective interest, can be authorized. But associations having works of improvement as their object must obtain from the Council of State a recognition that they are of public usefulness.

Although during the discussion, to which the law of 1888 gave rise in the Senate, it seemed to be admitted that the fixing of general boundaries was included among the works of agricultural improvement which an authorized association might undertake, doubts subsisted. According to some, the law had in view only works of land improvement and not works intended to open the road to undertakings of this kind. An opinion expressed by the Council of State, at the meeting held on 15 and 19 January 1891 to deal with the case of the commune of Baudignécourt (Meuse), did not suffice to dispel these doubts. This opinion was expressed in the following circumstances. The commune in question had wished for a general fixing of its boundaries, accompanied by a revision of the boundaries of all properties situated within its territory, the new boundaries to imply the opening of four farming roads; 392 landowners had consented to this enterprise, but one had been hindering its execution for a long time by his irreconcilable opposition. After the law of 1888 this opposition could no longer succeed. In the first place, where the farming roads were concerned the law was explicit and the dissenter could be compelled to contribute to opening them up; and in the second place the general fixing of boundaries became for him a work of delimitation which the Civil Code made obligatory for neighbour landowners. Because of the special circumstances the opinion of the Council of State, which was favourable to the claims of the commune, could constitute only a specific decision without bearing on the principal question, which had still to be elucidated, the question namely of whether the work of fixing general boundaries could become the object of an authorized association. As far as the delimitation of properties was concerned the law of 17 April 1898 as to the revision of the land-survey had dispelled all doubts. But the rectifications of contours and the exchange

of parcels of land which sometimes accompanied a general fixing of boundaries could not be other than voluntary, so long as the law of 1865-88 were not amended. An association could not be authorized to insist on such rectifications and exchanges any more than to undertake a redivision. This then was the object of the new law of which we will explain the provisions.

Legal Definition.—A regularly authorized syndical association has freedom of action and is ruled by its own by-laws. Can the use of this freedom be reconciled with the nature of works of redivision raising other questions than those which associations, formed for the purpose of work involving transfer of property rights, are usually called upon to solve? There seemed to be nothing against this, so long as the actual text of the law, by defining precisely the object and the limits of redivision, ensured that all who took part in it should have the necessary guarantees and safeguards. With this object, Article 1 of the law of 27 November 1918 lays down that "when, in a territory which may depend on one or more adjacent communes or parts of communes, properties which are not built upon are divided into parcels and scattered, redivision may take place by means of a new distribution of the land. This redivision has no aim except the improvement of farming on the lands on which it takes place".

Exchanges in Kind.—There is however no encroachment on the liberty of a syndical association, nor any opposition to its free action, in a declaration of the bases on which the law means the exchanges implied by redivision to be effected. This redivision must not be a cover for real exchanges of property, false to its principle and injurious to the interests of the Treasury. Article 2 of the law therefore provides that exchanges must be really in kind, each landowner receiving an area proportionately equal, in extent and in quality, to that which he cedes.

Payment of Balance in Cash.—It may however happen exceptionally that this principle cannot be observed and that a balance of value must be paid in cash, either because fractions of land too small to allow them to be exchanged for other land are in question, or because a landowner has to be compensated for a value of a transitory nature attaching to his land—such as that of trees, enclosures, manuring, sowing—which cannot be credited to him otherwise because it is a rule of redivision that only the area and quality of the land can be the basis of exchanges. Article 3 therefore establishes that "exceptionally, the payment of a balance in cash is authorized, 1) when it is impossible to establish among holdings in real estate the balance for which Article 2 provides, without payment of a sum in cash; 2) when it is necessary to indemnify an owner of land ceded for such additional transitory value as that of enclosures, trees, manuring and sowing, attaching to his land. The sum paid as a balance will be paid to the beneficiary directly only if the real estate he remits in exchange be not burdened with any charge.

Procedure.—The procedure organized by the law of 21 June 1865-22 December 1888 is retained, with the following amendments contained in Article 4:

1) The landowners concerned who, when duly summoned and when

warned of the consequences of their abstention, do not formally oppose the enquiry in writing, or who fail to appear or vote at the general meeting, shall be considered to have joined the association.

2) The documents to be submitted to the administrative enquiry will comprise a plan showing the perimeter of the lands to be redivided, a description of the property on each parcel, and the association's scheme.

3) A committee shall have for chairman the justice of the peace and shall consist of the departmental directors of direct taxation, registration and agricultural services or their respective delegates, of a notary of the canton nominated by the prefect, and of four landowners elected by secret ballot, of whom two shall not be local. This committee shall meet at the chief town of the canton and shall arbitrate, in the last resort, when disputes arise among members of the association or when one of them questions the classification or valuation of lands or the interpretation of an act of the association. The commission can collaborate in a consultative capacity with the engineer or other expert who is directing works undertaken.

The committee's rôle ends when the agreement concluding works of redivision has received official confirmation. This confirmation will have the effect of in some sort authenticating, by a public deed, the agreement to which the general meeting of those interested subscribers, and the material expression of this agreement which will take the form of a plan drawn up in two copies, and a table showing the number, nature and content of each parcel of land, together with the name of its new owner. Extracts from this description, which will show the particulars mentioned and also the size of parcels, will serve the landowners concerned as title-deeds to whatever is included in their lots. The data in these extracts will form the bases of mortgages.

Competence of the Association. — By the terms of Article 5 a syndical association regularly constituted for purposes of redivision is able on occasion to make rural farming roads, in the course of redivision and within the limits thereof. The lands necessary to this object are deducted from the total area to be redivided.

Rural roads made anew or altered in their course during works of redivision may be recognized by a decree following on a resolution of the municipal council.

The syndical association is no less qualified to decide upon and to execute all works of land improvement connected with the works for which the deed of association provides.

Rights of Third Parties. — We have still to consider the extent to which a redivision may disturb the legal relations between landowners and persons having rights in the real estate within the sphere of undertakings. This is a serious difficulty, which the number and complexity of rights contribute to increase.

The properties which are to be redistributed may be burdened with rights of usufruct, services, liens and mortgages, or may be leased, or their rents and profits may constitute security. They may be the object of actions at law for claiming or cancelling rights. These rights and actions

will be transferred to the equivalent real estate for which they are exchanged. This method is followed everywhere where redivision is practised, and it would be difficult to imagine another as simple and equitable. Objections of principle can evidently be made against replacing a security established by free agreement with an imposed security. But it seems just that where the primary right of all, the right of property, yields place, rights deriving from it should share its fate. The effects of a redivision are binding on all, as are those of expropriation.

It has however seemed equitable to allow holders of these rights to retain the power to protest, before the committee for which Article 4 provides, against the new situation to which this substitution gives rise, and to obtain a hearing for their objections. A lessee or *métayer* may wish to ask that his lease be amended or cancelled; a mortgagee may desire to make reservations as to the new security provided for his credit. None of these claims will have a suspensory effect; they can neither modify nor delay the course of operations; but they will evoke from the committee decisions by which the syndicate and the expert directing the redivision will, if need be, profit.

This right of intervention reserved for third parties presupposes, if it is to be usefully exercised, preliminary notice, for which a ruling of the public administration will provide, of work to be undertaken.

Exchanges of Real Estate. — Although experience teaches that no measure is absolutely effective against the dispersion of property except collective territorial readjustment, results which can be expected from individual exchanges are not negligible, and become less so when the possibility of compulsory collective exchanges appears.

Article 8 of the new law determines that exchanges of rural real estate will be assimilated, in so far as the transfer of liens and mortgages burdening such property are concerned, to exchanges effected by means of collective redivision; but the mortgagee or lien-holder will always be able, if necessary, to have this transfer judicially annulled by the president of the civil court, legislating in the chamber of council.

There is yet another obstacle which it has been considered important to avoid, with a view to making these exchanges general, namely that arising out of the heavy charges accompanying the transfer of the property of incompetent persons. A resolution of the family council must authorize them. This resolution must be submitted for official confirmation to the civil court against whose decision there is appeal. Individual exchanges of rural real estate are not, from the public point of view, of sufficient interest to authorize a demand for the suppression of these formalities, which constitute guarantees for persons whom the law desires to protect, but a financial law will determine the conditions in which exemption from all dues to the State will be granted, in the case of a resolution of a family council, and the judgement officially confirming it, which authorize the exchange of rural real estate belonging to an incompetent person.

GREAT BRITAIN AND IRELAND.

THE FIXING OF AGRICULTURAL WAGES IN ENGLAND AND WALES — *The Labour Gazette*, Vol. XXVI, No. 10 London, October 1918

On the 10th and 11th of October the Agricultural Wages Board completed its work (1) of fixing minimum rates of wages for adult men workers in agriculture in every county in England and Wales. Minimum rates for boys have been fixed for every English county and for the Welsh counties except Radnor, Brecon, Merioneth and Montgomery.

The new orders fix wages as follows for men eighteen and more years old :

County	Minimum weekly wage	Length of working week	
		in summer	in winter
Lancashire	35s.	55 ½ hours	55 ½ hours
Anglesey and Carnarvon	34s. 6d.	56 "	51 "
Merioneth and Montgomery . .	30s.	54 "	48 "

For boys under eighteen years of age, the new orders fix minimum rates of weekly wages and rates of pay for overtime in Lancashire and in Anglesey and Carnarvon, and also in twenty-seven other counties.

The minimum rates of wages which have now been fixed for *ordinary male agricultural labourers* all over England and Wales range from 30s. a week, a rate found in many counties, to 35s. a week in Cumberland, Westmorland and Furness, Yorkshire, Lancashire, Nottinghamshire and Staffordshire, 36s. a week in Northumberland, Durham and Cheshire, and 36s. 6d. a week in Glamorgan and Monmouth.

For boys the rate fixed is with a few exceptions, 10s. a week for boys under fourteen, rising by equal annual increments to the full minimum for men. Boys are, like adults, paid for overtime on the basis that overtime on weekdays is equal to time and a quarter and overtime on Sundays to time and a half. In order to allow for inexperience a reduction of 20 per cent. is allowed on the rates for all boys under eighteen during the first two months of their employment in agriculture.

Minimum rates of wages and of payment for overtime have also been fixed for such *special classes of male workers* as horsemen, stockmen and shepherds, who are entrusted with the care of animals and necessarily work for longer and more uncertain hours than ordinary farm labourers. The

(1) For the earlier activity of this board see our issues for May 1918, page 436; June 1918, page 523; August 1918, page 699; and October 1918, page 850.

rates are usually fixed for a week of seven days consisting of the hours of labour customary in the area and for the class of workers concerned, and rates for overtime apply if and when the customary hours are exceeded. These special rates were fixed in October for Suffolk, Dorset, Kent, Cambridgeshire, Huntingdon and Bedfordshire, Northamptonshire, Sussex, Berkshire, Surrey, Lincolnshire, Yorkshire, Gloucestershire, Warwickshire, Cumberland and Westmorland, Middlesex, Hertfordshire, Anglesey and Carnarvon, Merioneth and Montgomery:

Finally, orders were made to fix rates of payment for the regular and overtime work of *women and girls* in agriculture throughout England and Wales. For women eighteen and more years old a uniform rate of 5*d.* an hour, and for girls a scale of rates beginning at 2 ½*d.* an hour for girls under fourteen and rising by annual increments of ½*d.* to the full minimum rate for women, were fixed. In Cumberland, Westmorland, the Furness District of Lancashire and Yorkshire the rates for each age-group of girls under eighteen were however 1*d.* an hour higher than elsewhere. Provision is made for a reduction of the specified rates by 1*d.* an hour during the first three months of a woman's or girl's employment in agriculture, and special provision is made for workers employed on weekly contracts in Northumberland.

